

Technical Information for

Power Center for the Performing Arts

Version current as of January 8, 2020

VENUE ADDRESS

121 N. Fletcher Street
Ann Arbor, MI 48109-2017

MAILING ADDRESS

University Productions
128 Michigan League
911 N. University Ave.
Ann Arbor, MI 48109-1265

AUDITORIUM SEATING CAPACITY

Orchestra	863
Orchestra wheelchair spaces	12
Orchestra companion seats	12
Balcony	455
<i>Total capacity (including accessible seating)</i>	<i>1342</i>

LOAD-IN ACCESS

Access to loading dock is on Palmer Drive

Loading Dock Doors 18' x 12'

Note - Two trucks can be parked at the dock for loading/unloading.

STAGE SPECIFICATIONS

Proscenium arch width 55'-3 $\frac{3}{4}$ "
Proscenium arch height 28'
Depth of stage 42' (from plaster line to back wall)
Depth of apron 2' (front of stage to plaster line)
Off stage dimensions 18' (stage right)
22'-3" (stage left)
Dimensions of orchestra pit 31' x 8'

Note - Orchestra pit is a hydraulic lift to stage level with four stops - stage level, house level, 7' - 8" below house level (pit level), 14' below house level (storage room level)

Stage floor - Unpainted masonite on tongue-and-groove pine resting on sleepers.

RIGGING

Single purchase manual counterweight system

Number of line sets 65
Height of grid from stage floor 80'
Height of SR pin rail from stage floor 40'
Highest batten can be flown 75'
Lowest batten can be flown 3'
Distance from back wall to last set 11'-6"
Minimum pipe length 45'
Arbor Information Total length 8'
Loading clearance 1'
Usable length 7'
Full weight - 25 lbs, 2 $\frac{1}{8}$ " tall
1/2 weight - 12 $\frac{1}{2}$ lbs, 1" tall
Arbor capacity 975 lbs (39 full weights)

Note - loading gallery located on SR

SOFT GOODS

House Curtain - manual, flies out, does not open center, follows apron, gold-checked color

House Masking Hang (all draperies are black velour unless otherwise noted)

One (1) Teaser	60' x 25'
One (1) White Muslin "bounce" drop	60' x 38'
One (1) Rosco RP screen "Twin White"	60' x 39'
One (1) Border/Blackout	60' x 30'
Four (4) Borders	60' x 15'
Four (4) Legs	12' x 40'
Six (6) Legs	17' x 40'
One (1) Traveler track	
Two (2) Traveler panels	25' x 40'
	hung with two (2) tabs 4'-3"w x 40'8"h
Four (4) Traveler panels	32' x 30' (dead hung and cannot move)

Additional drapery

One (1) Scrim, white sharkstooth	60' x 30'
Two (2) Scrims, black sharkstooth	50' x 28'
Two (2) Orchestra pit drapes	(one full length velour, one short Duvetine)
Eight (8) Tabs	6' x 30'
Four (4) Tabs	9' x 30'
Two (2) Legs	15' x 40'
Eight (8) Legs	17'-9" x 30'
Two (2) Traveler Panels	31'-3" x 30'
One (1) Border	50' x 15'
One (1) Border (for House Curtain)	70' x 7'-5"
One (1) Border (for Lineset A)	41' x 15'

COMPANY SWITCHES

110/208v 3 phase 5 wire - Two (2) 400 amp disconnects on USR Wall

Note - Access to this power is ONLY via 400 amp locking Cam Locks

Four (4) 60 amp 208v NEMA 14-60 circuits on USR Wall

Isolated Audio Power on DSL Wall

Three (3) 30 amp 120v L21-30 circuits

Four (4) 20 amp 120v duplex edison circuits

One (1) 30 amp 110v single phase twist lock circuit

LIGHTING SYSTEM

Lighting Control

One (1) ETC EOS Ti w/ three (3) touch screen displays, in lighting booth

(Note: Operating system 2.9.1 Build 17)

One (1) ETC Nomad Puck w/ two (2) touch screen displays

One (1) ETC Radio focus remote

ETC Net3 ports located throughout the hall

Dimmers:

Four hundred seventy-two (472) ETC 2.4kW Sensor dimmers

Four (4) ETC 6kW Sensor dimmers

House lights controlled through ETC Paradigm System

Note - See circuit chart for more information on dimmers and house 208v moving light power

Front of House Repertory Hang

#2 Ring	Twenty (28) ETC Source Four 10° 575w Twenty (14) ETC Source Four 5° 575w Three (3) Lycian Xenon Followspots, model 1290
#1 Ring	Forty-Two (42) ETC Source Four 10° 575w Two (2) PAR 64 1kW as work lights
#0 Ring	Two (2) ETC Source Four 19° 575w
Stage Left Box Boom	Ten (10) ETC Source Four 14° 575w
Stage Right Box Boom	Ten (10) ETC Source Four 14° 575w
Stage Left Pro-Torm	Six (6) ETC Source Four Zoom 15° - 30° 575w with half hats <i>Top unit at +26' with 2' spacings down</i>
Stage Right Pro-Torm	Six (6) ETC Source Four Zoom 15° - 30° 575w with half hats <i>Top unit at +26' with 2' spacings down</i>

Additional Lighting Inventory

- Sixty-Eight (68) ETC Source Four LED Lustr 2 Engines
 - Fifty-Eight (58) Shutter assemblies for ETC Source Four LEDs
 - Twenty (20) Cyc attachments for ETC Source Four LED
- Two hundred fifteen (215) ETC Source Four 575w Bodies w/ shutter assemblies
 - Six (6) ETC Source Four 5° Lens Tubes
 - Ten (10) ETC Source Four 10° Lens Tubes
 - Seventy-five (75) ETC Source Four 19° Lens Tubes
 - One Hundred Nine (109) ETC Source Four 26° Lens Tubes
 - Fifty-Eight (58) ETC Source Four 36° Lens Tubes
 - Fifteen (15) ETC Source Four 50° Lens Tubes
- Forty (40) ETC Desire D60 LED Lustr+
- Forty-Four (44) ETC Source Four PAR 575w (VNSP, NSP, MFL, WFL lenses available)
- Fifty (50) Altman PAR 64 (VNSP, MFL, WFL lamps available)
- Ten (10) MR-16 L&E striplights 3 circuit/5 pairs lamps, 6' long, EYC and EYF available

Four (4) LE Mini 10 units 1K

Accessories

Twenty-Two (22) Color Ram IIs-Use limited to Source Four units. 1,500' of control cable.

Two (2) 24 -Way Color Ram Power Heads, one with c-clamps

Twenty-Two (22) 7.5" Mounting plates

Twenty-Two (22) 6.25" Mounting plates

Seventeen (17) Source Four iris units

Forty-Five (45) Source Four top hats

Sixty (60) Source Four color extenders

Template holders (Source 4, Altman, Great American)

Sixteen (16) Mini-Ten color extenders

Misc. PowerCon cables for LED instruments

SOUND SYSTEM

Console

One (1) 16 channel mixing board, Midas F26 (in booth)

One (1) 8 channel mixing board, Yamaha MC802 (portable)

Playback

One (1) compact disc, Tascam CD-401 mkII (in road case)

Processing

Four (4) Crest CC301 amps (outputs to speaker patch bay)

Four (4) Rane GE-60 graphic EQ's (normalised to Rane EQ's)

One (1) patch bay w/28 patch cords

One (1) headset, stereo

Speakers

One (1) EV DeltaMax 1152/1122 speaker cluster

(permanently mounted above stage center at proscenium)

Four (4) Electro-Voice DeltaMax 1122A

Eight (8) EV Sentry IIA

Six (6) 50' speaker cables (Speakon connectors)

Fifteen (15) 25' speaker cables (Speakon connectors)

Fifteen (15) 10' speaker cables (Speakon connectors)

One (1) audio snake, 100' long 8 x 4 channels

Monitor

One (1) booth program monitor
One (1) Crest CC301 amps
Two (2) JBL Control 3 speakers (mounted on wall in booth)

Microphones

Two (2) portable wireless microphone racks
 Total of four (4) wireless channels - only four (4) transmitters can be used at once
 Each contains (1) Shure Dual UHF-R Receiver
 Each contains two (2) Shure UR2/SM58 and two (2) Shure UR1 transmitters w/ lapel mic
Six (6) AKG 451 condensers, w/shotgun capsule
Four (4) Electro-Voice RE15
Four (4) Electro-Voice RE50
Two (2) Shure SM58
Two (2) Shure SM58 w/on-off switch
Six (6) Cocoon floor mount "microphone mouse"
Three (3) 18" gooseneck microphone stands

Microphone jack outlets

<i>Mic line #</i>	<i>Location</i>
1 - 2	stage lip DSR
3	stage lip DSRC
4	stage lip DSC
5	stage lip DSLC
6 - 7	stage lip DSL
8 - 11	Proscenium wall SR
12 - 15	Proscenium wall SL
16 - 17	USR wall
18 - 19	USL wall
20 - 23	Patch Panel SR
24 - 27	#0 Ring
28 - 30	#1 Ring center
31 - 32	#2 Ring HL of followspot booth
33 - 34	#2 Ring HR of followspot booth
35	Light Booth
P2	stage lip DSR
P3	stage lip DSRC
P4	stage lip DSC
P5	stage lip DSLC
P6	stage lip DSL

Speaker outlets

<i>Speaker Line #</i>	<i>Location</i>
Left & Right	Program proscenium wall SR
1	stage lip SR
2	stage lip SL
3, 5, 7	proscenium wall SR
4, 6, 8	proscenium wall SL
9 & 11	USR (up stage right)
10 & 12	USL (up stage left)
13	rear of orchestra HL (sec. 5)
14	rear of orchestra HR (sec. 1)
15	rear of balcony ceiling HL (sec. 6)
16	rear of balcony ceiling HR (sec. 8)
17	rear of orchestra HL (sec. 4)
18	rear of orchestra HR (sec. 2)
19	rear of balcony ceiling HL (sec. 9)
20	rear of balcony ceiling HR (sec. 7)
21 - 22	#0 ring
23 - 26	#1 ring center
27 - 28, 31	#2 ring HL of followspot booth
29 - 30, 32	#2 ring HR of followspot booth
33	light booth
34	spare
35	lobby floor HL
36	lobby floor HR
37 - 38	cluster amp rack
39	vomitory entrance HL
40	vomitory entrance HR
41 - 42	sound booth rack

Miscellaneous Audio Equipment

Fifteen (15) 25' speaker cables (Speakon connectors)
Fifteen (15) 10' speaker cables (Speakon connectors)
One (1) audio snake, 100' long 8 x 4 channels
Four (4) microphone stands, desk
Twelve (12) microphone stands, floor round base
Two (2) microphone stands, boom attachments
Twenty-Five (25) Microphone cables

COMMUNICATION SYSTEMS

Headset System

Ten (10) Beyer DT-108 single muff headsets, 15 Telex
Three (3) Clear-Com KB-112 squawk box
Fifteen (15) Clear-Com RS-501 single channel belt packs
Five (5) Clear-Com RS-502 double channel belt packs
Six (6) Freespeak II wireless double channel belt packs
Sufficient headset cable for most applications.

Intercom

One (1) dressing room monitor system w/ dressing room page

Video

Three (3) cameras - Two (2) color, fixed in booth, One (1) black/white portable for conductor use
Two (2) 9" color monitors available for stage manager SR
One (1) 17" color monitor available for stage manager SR
One (1) 32" mobile color flat screen monitor
Miscellaneous black/white small monitors available
One (1) 32" color monitor in trap room with stage view
Four (4) color monitors for late seating
 two (2) on orchestra level outside lobby doors HR & HL
 two (2) on balcony level HR & HL above doors on bridge

Information System

Wired - Ethernet 10 and 100 Base-T — Jacks are located throughout building (stage and lobby) and may be used by arrangement in advance. All wired network circuits are protected by the SMTD firewall, part of the University of Michigan's Virtual Firewall. Please verify in advance that what you need is available by contacting Barry LaRue at 734-763-4220 or blarue@umich.edu.

Wireless - U-M Wireless on-stage and in the auditorium, lobby and dressing rooms. Please refer to <http://www.itcom.itd.umich.edu/wireless/> for information regarding access.

DRESSING ROOMS

Washer and Dryer (2 each) located in trap room. All dressing room access USR.

One Flight Above Stage Level:

Two (2) Dressing Rooms - Each with seating and mirrors for four (4) performers with toilet, basin and shower.

Stage Level:

One Dressing Room - With seating and mirrors for four (4) performers with toilet, basin and shower.

One Dressing Room - ADA compliant with accessible lavatory and roll in shower for two performers.

One Flight Below Stage Level:

Small Ensemble Room - seating and mirrors for 14 performers, showers, basins, and toilets.

Large Ensemble Room - seating and mirrors for 24 performers, showers, basins, and toilets.

Note - The wall between ensemble rooms is removable to make one large space.

REMOVABLE SEATING

Section 1

Row	Seats	Note
D	1, 2	
E	1, 3, 2	

Section 2

Row	Seats	Note
B	1, 3, 2	Orch/HR Vom
C	1, 3, 4, 2	Orch/HR Vom
D & E	1, 3, 5	HR Vom
F	1, 3, 5, 7	HR Vom
F	2, 4, 6	
G & H	1, 3, 5, 7	HR Vom
J, K & L	1, 3, 5	HR Vom
U & V	2, 4, 6	Sound pulls
U & V	8, 10, 12	Sound pulls
W	2, 4	Sound pulls

Section 3

Row	Seats	Note
A	1, 3, 4, 2	Orch pit
B	1, 3, 5	Orch pit
B	2, 4	Orch pit
C	1, 3, 5	Orch pit
C	2, 4, 6	Orch pit
D & E	1, 3	
D & E	5, 7, 6	
D & E	2, 4	
F	1, 3, 5, 7	
F	2, 4, 6, 8	

Section 4

Row	Seats	Note
B	1, 3, 2	Orch/HL Vom
C	1, 3, 4, 2	Orch/HL Vom
D	2, 4	HL Vom
E	2, 4, 6	HL Vom
F	1, 3, 5	
F, G & H	2, 4, 6, 8	HL Vom
J, K & L	2, 4, 6	HL Vom

Section 5

Row	Seats	Note
D	1, 2	
E	1, 3, 2	

CONFERENCE/LOBBY/BACKLINE EQUIPMENT

Tables:

- Three (3) 30" x 4' conference tables
- Four (4) 30" x 8' conference tables
- Two (2) 13' royal blue table skirts
- Two (2) 21' royal blue table skirts

Orchestra Pit:

- Sixty (60) music stands
- Sixty (60) music stand lights
- One (1) conductor's stand
- Sixty (60) black Wenger orchestra chairs
- Thirty (30) padded chairs
- Twenty (20) bent plywood chairs

Ladders:

- One (1) 8' Step ladder
- One (1) 10' Step ladder
- One (1) 12' Step ladder
- One (1) 16' Step ladder
- One (1) Genie personnel lift (max. platform height 30') - requires current lift certification for use
- One (1) JLG personnel lift (max. platform height 36') - requires current lift certification for use

Miscellaneous Equipment

- One (1) 9' x 12' front or rear projection screen with side & bottom drapes
- One (1) 10.5' x 14' front or rear projection screen with bottom skirt
can be reconfigured to 9' x 16'
- Fifteen (15) Loose hemp lines, 5/8"
- One (1) hoist, 1/2 ton, electric
- One (1) one-ton CM chain motor w/60' chain
- One (1) bull winch
- Three (3) hand trucks
- One (1) upright grand Yamaha piano with bench (Additional charge for moving and tuning)
- Three (3) costume racks
- Two (2) 30" x 6' prop tables
- One (1) 24" paper cutter
- One (1) United States flag with pole & floor stand
- One (1) State of Michigan flag with pole & floor stand
- One (1) University of Michigan seal (for officially sanctioned events)

HOUSE LINE SET SCHEDULE:

<i>Line Set #</i>	<i>Distance from Plaster</i>	<i>House Hang</i>	<i>Notes</i>
C	0'-3"		16'-1" long
B	1'-5"		29'-0" long
A	2'-8"		41'-0" long
House Curtain	2'-3"	House Main Curtain (Follows proscenium curve)	
Dead Hung	3'-2"	Dead hung torm panels w/black velour	
Dead Hung	3'-6"	Dead hung traveler track w/pleated black velour	
1	4'-4"	Teaser	
2	5'-2"		
3	6'-2"	#1 Electric	Dimmers 205-216
4	7'-6"	#2 Electric	Dimmers 217-228
5	8'-0"	Boom Cable X/O	Dimmers 229-234
6	8'-6"	#3 Electric	D60s. Relay 391
7	9'-0"		
8	9'-6"	#1 Border	
9	10'-0"	#1 Legs	
10	10'-6"		
11	11'-0"		
12	11'-6"	#4 Electric	Dimmers 253-264
13	12'-0"		
14	12'-6"	Boom Cable X/O	Dimmers 265-270
15	13'-0"	#5 Electric	Dimmers 277-288
16	13'-6"		
17	14'-0"		58'-1" long batten
18	15'-0"	#6 Electric	D60s. Relay 392
19	15'-6"		
20	16'-0"	#2 Border/Blackout	
21	16'-6"	#2 Legs	
22	17'-0"		
23	17'-6"		
24	18'-0"	Boom Cable X/O	Dimmers 301-306
25	18'-6"	#7 Electric	Dimmers 313-324
26	19'-0"		
27	19'-6"		
28	20'-0"		
29	20'-6"		
30	21'-1"		
31	21'-6"	#3 Border	
32	22'-0"	#3 Legs	
33	22'-6"		
34	23'-0"	#8 Electric	D60s. Relay 393
35	23'-6"		58'-0" long batten

HOUSE LINE SET SCHEDULE (CONTINUED)

<i>Line Set #</i>	<i>Distance from Plaster</i>	<i>House Hang</i>	<i>Notes</i>
36	24'-0"	#9 Electric	Dimmers 337-348
37	24'-6"		
38	25'-10"	Boom Cable X/O	Dimmers 349-354
39	26'-6"		
40	27'-0"	#4 Border	
41	27'-6"	#4 Legs	
42	28'-0"		
43	28'-6"		
44	29'-0"		
45	29'-6"	#10 Electric	D60s. Relay 394
46	30'-0"		
47	30'-6"		
48	31'-0"	Black traveler	49'-11" track
49	31'-6"		
50	32'-0"		
51	32'-6"	#5 Border	
52	33'-0"		
53	33'-6"		
54	34'-0"	#5 Legs	
55	34'-6"		
56	35'-0"	Rosco RP screen	
57	35'-6"		
58	37'-0"		
59	37'-6"		
60	38'-0"		
61	38'-5"	Muslin bounce drop	
62	38'-11"	Blackout Drape	