

# POWER CENTER — TECHNICAL SPECIFICATIONS

## HOUSE SPECIFICATIONS

### Mailing Address:

University Productions  
911 N. University  
Ann Arbor, MI 48109-1265

### Venue Address:

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

### Seating Capacity:

Orchestra	914
Orchestra wheelchair spaces	12
Balcony	<u>455</u>
Total capacity	1369

## LOAD-IN ACCESS

Location	off East Huron
Loading Doors	18' x 12'

## CONFERENCE EQUIPMENT

### Tables and skirting

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

## STAGE SPECIFICATIONS

Proscenium arch width	55'-3-3/4"
Proscenium arch height	28'
Depth of stage (from curtain line to back wall)	42'
Depth of apron (front of stage to curtain line)	2'
Off stage dimensions	
stage right	18'
stage left	22'-3"
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, 14' below house level.

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

### Stage extension (use of Orchestra Pit at stage level)

NOTE - Use of the stage extension requires a loss of seating with additional labor charges for set-up and removal.

#### Seating covered:

Sections 1-5                      Rows A-C

Also recommended not to sell:

Sections 1-5                      Row D

## Soft Goods:

Note: all draperies are black velour unless otherwise noted.

Front Curtain - manual, takes two (2) people, flies out, does not open center, follows apron, gold-checked color

House Drapery Hang: see house line plot for line set location

One (1) Teaser                      60'w x 25'h

One (1) Cyclorama                60'w x 38'h  
(unbleached muslin)

One (1) Rosco RP screen        60'w x 39'h  
"Twin White" (cannot move)

One (1) Border/Blackout        60'w x 30'h

Four (4) Borders                60'w x 15'h

Four (4) Legs                    12'w x 40'h

Four (4) Legs                    17'w x 40'h

One (1) Traveler track

Two (2) Travelers                25'w x 40'h  
hung with two (2) tabs        4'-3"w x 40'8"h

Four (4) Travelers                32'w x 30'h  
(dead hung and cannot move)

### Additional drapery:

One (1) Scrim, white sharktooth 60'w x 30'h

Two (2) Scrim, black sharktooth 50'w x 28'h

Two (2) Orchestra pit drapes  
(one full length velour, one short Duvatine)

Eight (8) Tabs                    6'w x 30'h

Four (4) Tabs                    9'w x 30'h

Two (2) Legs                    15'w x 40'h

Eight (8) Legs                    17'-9"w x 30'h

Two (2) Traveler Panels        31'-3"w x 30'h

One (1) Border                    50'w x 15'h

One (1) Border                    70'w x 7'-5"h

One (1) Border (for Elec. A)    41'w x 15'h

## Rigging:

Number of line sets	65
Height of grid from stage floor	80'
Highest batten can be flown	75'
Lowest batten can be flown	3'
Height of fly gallery and pin rail	40' from stage floor
Distance from back wall to last set	11'-6"
Minimum pipe length	45'
Height of legs	40'

## Arbor Information

Total length	8'
Loading clearance	1'
Usable length	7'
Full weight	25 lbs, 2-1/8" tall
1/2 weight	12 1/2 lbs., 1" tall
Arbor capacity	39 full weights @ 975 lbs.

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## House Line Plot:

Line set #	Distance from plaster	Description	Notes
	(3'-6")	House Curtain	DS of plaster
C	0'-3"	C	16'2" long
B	1'-5"	B	29'0" long
A	2'-8"	A	41'0" long
	3'-2"	Dead hung torm panels w/black velour	
	3'-6"	Dead hung traveler track w/pleated black velour drapes	
1	4'-4"	Teaser	60'-0"
2	5'-2"		60'-0"
3	6'-2"	#1 Electric	60'-0"
4	7'-6"	#2 Electric	60'-0"
5	8'-0"	Cable cross over	60'-0"
6	8'-6"	#3 Electric strips	60'-0"
7	9'-0"		60'-0"
8	9'-6"	Border #1	60'-0"
9	10'-0"	Leg #1	60'-0"
10	10'-6"		60'-0"
11	11'-0"		60'-0"
12	11'-6"	#4 Electric	60'-0"
13	12'-0"		60'-0"
14	12'-6"	Cable cross over	60'-0"
15	13'-0"		60'-0"
16	13'-6"		60'-0"
17	14'-0"		58'-1"
18	15'-0"	#5 Electric	60'-0"
19	15'-6"	#6 Electric strips	60'-0"
20	16'-0"	Border #2/Blackout	60'-0"
21	16'-6"	Leg #2	60'-0"
22	17'-0"		60'-0"
23	17'-6"		60'-0"
24	18'-0"	Cable cross over	60'-6"
25	18'-6"	#7 Electric	60'-0"
26	19'-0"		60'-0"
27	19'-6"		60'-0"
28	20'-0"		60'-0"
29	20'-6"		60'-0"
30	21'-1"		60'-0"
31	21'-6"	Border #3	60'-0"
32	22'-0"	Leg #3	60'-0"
33	22'-6"		60'-0"
34	23'-0"	#8 Electric strips	60'-0"
35	23'-6"		58'-0"
36	24'-0"	#9 Electric	60'-0"
37	24'-6"		60'-0"
38	25'-10"	Cable cross over	60'-0"
39	26'-6"		60'-0"
40	27'-0"	Border #4	60'-0"
41	27'-6"	Leg #4	60'-0"
42	28'-0"		60'-0"

Line set #	Distance from plaster	Description	Notes
43	28'-6"		60'-0"
44	29'-0"		60'-0"
45	29'-6"	#10 Electric strips	60'-0"
46	30'-0"		60'-0"
47	30'-6"		60'-0"
48	31'-0"	Black traveler	60'-0" pipe 49'-11" track
49	31'-6"		60'-0"
50	32'-0"		60'-0"
51	32'-6"	Border #5	60'-0"
52	33'-0"		60'-0"
53	33'-6"		60'-0"
54	34'-0"	Leg #5	60'-0"
55	34'-6"		60'-0"
56	35'-0"	Rosco RP screen	60'-0" Perm.
57	35'-6"		60'-0"
58	37'-0"		60'-0"
59	37'-6"		60'-0"
60	38'-0"		60'-5"
61	38'-5"	Cyclorama	60'-0"
62	38'-11"	Blackout Drape	60'-0"

## LIGHTING SYSTEM

### Location of company switch:

USR wall — 110/208 3 phase 5 wire, 2 breakers @ 400 amps each

Note: Access to this power is ONLY via 400 amp locking CamLocks ; Crouse-Hinds model #E0400-1687 female panel

### Lighting Control:

One (1) ETC Obsession II (in booth)

Two (2) ETC remote focus units w/extension cable

One (1) ETC remote video interface w/2 color monitors

One (1) ETC full remote interface (rfu, video, dmx512)

ETCnet and DMX ports distributed throughout. See circuit chart for details.

### Dimmers:

Four Hundred Seventy-Two (472) ETC 2.4 KW Sensor dimmers

Four (4) ETC 6.0 KW Sensor dimmers

House lights controlled through ETC Unison System

### Circuit/Dimmer Locations:

See attached plan of circuit chart.

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## Lighting Inventory:

### Racks: Total bodies - Two-hundred fifteen (215)

Fifteen (15) 50° Source Fours (equiv. to 4.5 x 6), 575 watt HPL  
Fifty (50) 36° Source Fours (equiv. to 6 x 9), 575 watt HPL  
One Hundred Nine (109) 26° Source Fours (equiv. to 6 x 12), 575 watt HPL  
Fifty-Five (55) 19° Source Fours (equiv. to 6 x 16), 575 watt HPL  
Forty-Four (44) Source Four PAR with wide, medium, narrow and very narrow lenses  
Fifty-One (51) PAR 64 Altman steel with wide, medium and very narrow lamps available  
Ten (10) MR-16 L&E striplights 3 circuit/5 pairs lamps, 6' long, EYC and EYF available  
Twenty (20) PAR 56 8' strip lights, medium flood, 500 watt, 3 circuit, 12 light units with flippers  
Two (2) striplights, 8' long, R40 500 watt, 3 circuits/4 lamp  
Ten (10) Orion 3 circuit "far cyc" units, 1,000 watt FCM  
Ten (10) Orion 1 circuit "far cyc" units, 1,000 watt FCM  
Eight (8) LE Mini 10 units 1K

### #0 Ring:

Two (2) 19° Source Fours, 575 watt HPL

### #1 Ring:

Forty (40) 10° Source Four, 575 watt HPL

### #2 Ring:

Twenty (20) 10° Source Four, 575 watt HPL  
Twenty (20) 5° Source Four, 575 watt HPL  
Eleven (11) 6 x 22 Altman 360Q ERS with iris & gobo slot, 1000 watt FEL lamp  
Three (3) Lycian Superstar HMI Followspots

### Box Booms:

Ten (10) 14° Source Four, house left, 575 watt HPL  
Ten (10) 14° Source Four, house right, 575 watt HPL

### Torm Pipes:

Top unit at +26' W / 2' spacings down  
Six (6) 15° to 30° degree Source Four Zooms, house left, 575 watt HPL with 1/2 Hats  
Six (6) 15° to 30° degree Source Four Zooms, house right, 575 watt HPL with 1/2 Hats

### Lighting Cable:

Twenty-Nine (29) 5' stage cables  
Forty-Three (43) 10' stage cables  
Fifty-Five (55) 25' stage cables  
Fifteen (15) 50' stage cables  
Seven (7) 75' stage cables  
One (1) 100' stage cable  
Fifty-Six (56) 20 amp 2-fers  
Seven (7) 20 amp 3-fers

Ten (10) 20 amp 3-fers blocks  
One (1) 50 amp 2-fer  
Thirty-Five (35) 100' 6 channel #12 multi w/Socopex connectors  
Twenty (20) 75' 6 channel #12 multi w/Socopex connectors  
Thirty-Five (35) 50' 6 channel #12 multi w/Socopex connectors  
Four (4) 25' 6 channel #12 multi w/Socopex connectors  
Eighty (80) 6 channel staggered breakouts w/female stage pin  
Eight (8) 6 channel x-ray staggered breakouts  
Twenty (20) 6 channel breakouts w/female stage pin  
Twenty (20) 6 channel breakouts w/male stage pin

### Data Cable:

Five (5) 5' 4-pin data cable  
Eight (8) 10' 4-pin data cable  
Four (4) 25' 4-pin data cable  
Four (4) 50' 4-pin data cable  
Six (6) 100' 4-pin data cable  
One (1) 10' 5-pin data cable  
Nine (9) 25' 5-pin data cable  
One (1) 30' 5-pin data cable  
Three (3) 50' 5-pin data cable  
Two (2) 75' 5-pin data cable  
Two (2) 100' 5-pin data cable

### 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  
Twenty (20) additional 19° Source Four barrels  
Eight (8) additional 36° Source Four barrels  
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  
Eighteen (18) Mini-Ten frames

## AUDIO VISUAL EQUIPMENT

One (1) 9' x 12' front or rear projection screen with side & bottom drapes

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## HOUSE SOUND SYSTEM

### Console

One (1) 16 channel mixing board, Soundcraft K1 (in booth)  
 One (1) 8 channel mixing board, Yamaha MC802 (portable)  
 Four (4) Crest CC301 amps (outputs to speaker patch bay)  
 Four (4) Rane GE-60 graphic EQ's (normaled to Rane EQ's)  
 One (1) patch bay w/28 patch cords  
 One (1) headset, stereo

### Playback Devices

Two (2) cassette tape decks, Tascam 122 mkIII (in road case)  
 Two (2) dat tape decks, Tascam DA-30 mkII (in road case)  
 One (1) cassette tape deck, Technics RS-TR555 (portable)  
 One (1) compact disc, Tascam CD-401 mkII (in road case)  
 One (1) minidisc player Sony MDS-E10 (in road case)

### 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 and Accessories

Three (3) wireless microphone systems  
 Two (2) portable racks  
 One (1) Shure receiver SC-4  
 Two (2) Shure UHF-R receivers  
 Three (3) SM-58 wireless transmitters (176.200 Mhz & 2 UHF)  
 Three (s) lavalier transmitters (176.200 MHz & 2 UHF)  
 Six (6) AKG 451 condensers, w/shotgun capsule  
 Six (6) AKG shock mount, small  
 Six (6) AKG shock mount, large  
 Four (4) Electro-Voice RE15  
 Four (4) Electro-Voice RE50  
 Two (2) Shure SM58  
 Two (2) Shure SM58 w/on-off switch  
 Twenty-Five (25) Microphone cables  
 Two (2) Shure shock microphone mounts  
 Six (6) Cocoon floor mount "microphone mouse"  
 Four (4) microphone stands, desk  
 Eight (8) microphone stands, floor round base  
 Two (2) microphone stands, boom attachments  
 Three (3) 18" gooseneck microphone stands

### Microphone jack outlets

<u>Mic line #</u>	<u>Location</u>
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	O-Ring
28 - 30	1st Ring center
31 - 32	2nd Ring HL of followspot booth
33 - 34	2nd 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

<u>Speaker Line #</u>	<u>Location</u>
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	O ring
23 - 26	1st ring center
27 - 28, 31	2nd ring HL of followspot booth
29 - 30, 32	2nd 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

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## COMMUNICATION SYSTEM

### Headset System

Twenty-Five (25) Beyer DT-108 single muff headsets  
 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  
 Four (4) Telex wireless double channel belt packs  
 Sufficient headset cable for most applications.

### Intercom

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

### Video

Two (2) cameras - One (1) fixed in booth, One (1) in orchestra pit  
 One (1) Black/White monitor available for stage manager SR  
 One (1) Color monitor available for stage manager SR  
 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

Ethernet 10 and 100 Base-T — Jacks are located throughout building and may be used by arrangement in advance.

Wireless 10 Base-T — Apple Airport Extreme Base Station (IEEE 802.11b/g Direct Sequence Spread Spectrum 50 Mbps). These base stations provide coverage for the entire main-floor of the auditorium, the entire backstage, and selected parts of the basement and is for use by staff. Renters may gain access to the wireless network by arrangement in advance

For information on how to configure to the U-Prod network: <http://opserver.uprod.music.umich.edu/systems/airport.html>

## REMOVABLE SEATING

	Row	Seats	Note
Section 1	D	1, 2	
	E	1, 3, 2	
Section 2	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	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		
	2, 4, 6, 8		

Section 4	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	D	1, 2
	E	1, 3, 2

## DRESSING ROOMS

Note: 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 performers with toilet, basin and shower.

### Stage Level:

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

### One Flight Below Stage Level:

Small Ensemble Room - seating and mirrors for 15 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.

## MISCELLANEOUS EQUIPMENT

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)

## Ladders

One (1) 8' Step ladder  
One (1) 10' Step ladder  
One (1) 12' Step ladder  
One (1) 16' Step ladder  
One (1) A-frame ladder on dolly (min. 16'h, max. ext. 28'h)  
One (1) Genie personnel lift (max. platform height 30') -  
requires current lift certification for use

## 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