Dimmer Rack Replacement Project

Scope of Project

This project is to replace the old touring dimmer rack with two new installation dimmer racks. The project will also need to include rewiring where necessary due to the change in type of dimmer rack. The installation should be able to be completed within a two week time period if not less.

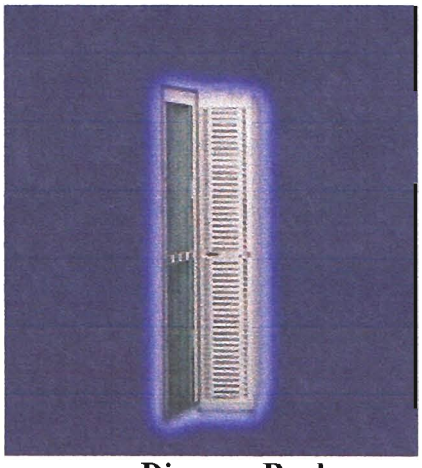
1) Remove old touring dimmer rack
2) Install second 400 amp service to dimmer area.
3) Install 2 new SR48 Sensor Installation Racks
4) Rewire existing circuits into connector panel next new racks
    a. Circuits 1-12 from the balcony rail should be wired in parallel to a panel with 12 single 2P&G connectors and 2 6 circuit multi connectors.
    b. All 8, 12 circuit multi connectors should be mounted in a panel next to the dimmer rack.
    c. The last 24 circuits should be mounted in the same panel with 24 single 2P&G connectors and 4, 6 circuit multi connector
    d. The rest of the front of house circuits are to be wired directly into the dimmer rack

Cost of Project

These are pre bid estimates and the actual final cost is likely to be less.
Dimmer Racks & Dimmers $40,000.00
Installation $10,000

Pictures

Dimmer



Dimmer Rack

Vendor Information

Local Vendor: CDK Lighting
1725 Lakewood Rd.
Toms River, NJ 08755
732-818-9119 Fax 732-818-0860
www.cdklighting.com
ETC Info: www.etcconnect.com

Q&A

Q: Why replace and not just repair?
A: The current dimmer rack is approaching 20 years old and is older technology that has been replaced by newer more efficient dimming methods. The current rack is also from a discontinued line make parts very expensive and soon these parts may not be available at all. The repair that is currently needed to get the dimmer rack to full working order is almost $5000.00 and many more repairs will probably be needed in the coming years.

Q: Why replace with installation racks and not a touring rack.
A: Installation racks are smaller and less expensive then touring racks. Also repair cost will end up being cheaper in the long run because installation racks are easer to work on and more of the parts are modular. Currently due to the size of our current dimmer rack repair and maintenance is difficult because we must climb over the rack to get to do repairs and cleaning.

Q: Why replace with two dimmer racks and not just one (Why 192 dimmers not 96, Why dimmer per curcit system)?
A: When we switch from a touring dimmer rack to installation racks we will be going from as system in which multiple circuit can be plugged into one dimmer to a system referred to as "dimmer per circuit". In "dimmer per circuit" systems each circuit coming from the house or the stage has its own dedicated dimmer. With each circuit having it's own dimmer we decrees the likely hood of dimmer being overloaded. A "dimmer per circuit" system removes the need to repatched. Repatching of lights (or circuits) is time consuming during the setup process for a show, removing this step would shorten setup calls. And finally the increased dimmer capacity will give us room to grow and better adapt to the needs of the bigger shows that we are trying to attract.

Q: Why ETC (SR48) Sensor dimmer racks?
A: The ETC (Electronic Theater Controls) line of sensor dimmer racks are the most widely used in the industry today. They have a proven track record in many theaters around the world. Also with such wide spread use parts will stay inexpensive and available for many more years then any other companies systems. The sensor dimmers have the ability to sense (thus there name) the conditions of the lighting instruments and can report back to the lighting board problems or status of any light hanging. This simple ability will help us avert problems (or blown lamps) before they can affect a show. The system is modular by design so parts can be easily switched out as technology changes and as our needs change. According to ETC literature there will also be the long run

savings on electricity, both from the electricity used on the dimmers themselves and the electricity used by the air conditioning used to cool the air, heated by the lighting system. The system runs cooler and more efficiently then our current system and other systems on the market.

Strand Lighting - Multi Replacment

New 6 Curcit Multi	Old 12 Curcit Multi	Electric	Multi Length Batton	Swag	Cross	Loop	Total	Break out	Break in
A	A	1E	14	30	7	10	61	Type B	Panel
B	A	1E	22	30	7	10	69	Type B	Panel
C	B	1E	32	30	7	10	79	Type B	Panel
D	B	1E	42	30	7	10	89	Type B	Panel
E		1E	0	30	7	10	47	Type C	Type A
F		1E	54	30	7	10	101	Type C	Type A
G	C	2E	14	30	11	10	65	Type B	Panel
H	C	2E	22	30	11	10	73	Type B	Panel
I	D	2E	32	30	11	10	83	Type B	Panel
J	D	2E	42	30	11	10	93	Type B	Panel
K		2E	0	30	11	10	51	Type C	Type A
L		2E	54	30	11	10	105	Type C	Type A
M	E	3E	14	30	19	10	73	Type B	Panel
N	E	3E	22	30	19	10	81	Type B	Panel
O	F	3E	32	30	19	10	91	Type B	Panel
P	F	3E	42	30	19	10	101	Type B	Panel
Q		3E	0	30	19	10	59	Type C	Type A
R		3E	54	30	19	10	113	Type C	Type A
S	G	4E	14	30	24	10	78	Type B	Panel
T	G	4E	22	30	24	10	86	Type B	Panel
U	H	4E	32	30	24	10	96	Type B	Panel
V	H	4E	42	30	24	10	106	Type B	Panel
W		4E	0	30	24	10	64	Type C	Type A
X		4E	54	30	24	10	118	Type C	Type A
Y		FLOOR		25	25	10	60	Type D	Type A

Red Indicatets Multi Letter to be labbeled and its length

Break In's & Out's

1	Panel = Repleacment of Panel with 8 Pile connectors with 16 saco connectors - wired directly to rack 2
10	Type A = 3' Tails with Male Stage Pin (1 Spare)
16	Type B = Tails Stagered at 18" with Female Stage Pin
8	Type C = 20' Tails with Female Stage Pin
2	Type D = 3' Tails with Female Stage Pin (1 Spare)

Old Curcits

96	via 8, 12 curcit multis
28	via single curcit bundels (4 to each side of each electric except for SL of 4E)
5	via single curcit bundel to back wall
129	

New Curcits

150 via 25, 6 curcit multis

Double Batten 2nd, 3rd and 4th Electric
Cross Pipe, Change to Truss with 2 moters (control at dimmer rack)
3rd Moter to pick up swag between truss and racks, each electric in seprete loop

Notes:
Batton = From Stage Right End of Batton to Termination Point
Swag = From Cross Pipe to Stage Right End of Batton
Cross = Length Allong Cross Pipe
Loop = From End of Cross Pipe to Panel or Drop
Gay = Calaculated
Green = Change to calculate length

Batton Drop Ponts

	Batton is 54' Every 18"	Feet	M#		Multi Length	
	18	1.5	1	x	0	
	36	3	2			
	54	4.5	3			
	72	6	4			
	90	7.5	5			
	108	9	6			
	126	10.5	1	x	14	+3.5
	144	12	2			
	162	13.5	3			
	180	15	4			
	198	16.5	5			
	216	18	6			
	234	19.5	1	x	22	+2.5
	252	21	2			
	270	22.5	3			
	288	24	4			
	306	25.5	5			
CL	324	27	6			
	342	28.5	1	x	32	+2.5
	360	30	2			
	378	31.5	3			
	396	33	4			
	414	34.5	5			
	432	36	6			
	450	37.5	1	x	42	+3.5
	468	39	2			
	486	40.5	3			
	504	42	4			
	522	43.5	5			
	540	45	6			
	558	46.5	1			
	576	48	2			
	594	49.5	3			
	612	51	4			
	630	52.5	5			
	648	54	6	x	54	

Type B & Panel

	1E	2E	3E	4E
1	97 A	121 G	145 M	169 S
2	98 A	122 G	146 M	170 S
3	99 A	123 G	147 M	171 S
4	100 A	124 G	148 M	172 S
5	101 A	125 G	149 M	173 S
6	102 A	126 G	150 M	174 S
1	103 B	127 H	151 N	175 T
2	104 B	128 H	152 N	176 T
3	105 B	129 H	153 N	177 T
4	106 B	130 H	154 N	178 T
5	107 B	131 H	155 N	179 T
6	108 B	132 H	156 N	180 T
1	109 C	133 I	157 O	181 U
2	110 C	134 I	158 O	182 U
3	111 C	135 I	159 O	183 U
4	112 C	136 I	160 O	184 U
5	113 C	137 I	161 O	185 U
6	114 C	138 I	162 O	186 U
1	115 D	139 J	163 P	187 V
2	116 D	140 J	164 P	188 V
3	117 D	141 J	165 P	189 V
4	118 D	142 J	166 P	190 V
5	119 D	143 J	167 P	191 V
6	120 D	144 J	168 P	192 V