



DS · MS WIRE ROPE

Downstage wire rope, 3 runs x 2 pieces, pylon arms TOP / MID / LOW

DS

1 · What plugs in from the rack (one feeder per run, IN end of piece 1)

Run	Where	Rack port	Feeder cable	Controller	px	sACN
DS1	TOP arm	NL4-1	NL4-1 single, 16/3 NL4: 3x 20 ft + 1x 10 ft + barrels (70 ft) arrives at the TOP arm	CTRL A out 1 192.168.41.41	369	41 to 43
DS2	MID arm	NL8-1 a	NL8-1 50 ft + 10 ft NL8 (16/6) + NL8MMX barrel, splitter OUTPUT 1 (8 ft tail) arrives at the MID arm (8 ft tail up)	CTRL A out 2 192.168.41.41	369	44 to 46
DS3	LOW arm	NL8-1 b	NL8-1 50 ft + 10 ft NL8 (16/6) + NL8MMX barrel, splitter OUTPUT 2 (2 ft tail) arrives at the LOW arm (at the splitter)	CTRL A out 3 192.168.41.41	369	47 to 49

2 · Pieces in hang order (label on the rope = BBDB name + IN / OUT). Every rope joint = NL4MMX barrel.

Label	Cut / pixels	IN end lands at	OUT end lands at
BBDB DS1-1 DS1 piece 1 of 2	30'0" 183 px · 41.1 to 42.39	IN RACK FEEDER NL4-1 (barrel to the feeder NL4)	OUT NJCT 1 (DSP, LX truss) MSWR-NJCT1 · 3fer Y3-01
BBDB DS1-2 DS1 piece 2 of 2	30'6" 186 px · 42.40 to 43.87	IN NJCT 1 (DSP, LX truss) MSWR-NJCT1 · 3fer Y3-01 leaving side	OUT NJCT 2 (DS end, backdrop truss) MSWR-NJCT2 · 2fer Y2-01
BBDB DS2-1 DS2 piece 1 of 2	30'0" 183 px · 44.1 to 45.39	IN RACK FEEDER NL8-1 a (barrel to the feeder NL4)	OUT NJCT 1 (DSP, LX truss) MSWR-NJCT1 · 3fer Y3-02
BBDB DS2-2 DS2 piece 2 of 2	30'6" 186 px · 45.40 to 46.87	IN NJCT 1 (DSP, LX truss) MSWR-NJCT1 · 3fer Y3-02 leaving side	OUT NJCT 2 (DS end, backdrop truss) MSWR-NJCT2 · 2fer Y2-02
BBDB DS3-1 DS3 piece 1 of 2	30'0" 183 px · 47.1 to 48.39	IN RACK FEEDER NL8-1 b (barrel to the feeder NL4)	OUT NJCT 1 (DSP, LX truss) MSWR-NJCT1 · 2fer Y2-03
BBDB DS3-2 DS3 piece 2 of 2	30'6" 186 px · 48.40 to 49.87	IN NJCT 1 (DSP, LX truss) MSWR-NJCT1 · 2fer Y2-03 leaving side	OUT NJCT 2 (DS end, backdrop truss)

3 · Injector columns on this section (power only; see KG3-BEA-PWR-01 for lengths)

PWR-NJCT 1 MSWR-NJCT1

DSP split · mid span · top rope 3'3" below the pickup · fed by LMG retractor, box feed 10 ft F to F

- **3fer Y3-01:** DS1-1 arriving, DS1-2 leaving · JMP-01 20 in jumper down to the next Wye
- **3fer Y3-02:** DS2-1 arriving, DS2-2 leaving · JMP-02 20 in jumper down to the next Wye
- **2fer Y2-03:** DS3-1 arriving, DS3-2 leaving

PWR-NJCT 2 MSWR-NJCT2

DS end · ropes terminate · top rope 3'3" below the pickup · fed by LMG retractor, box feed 10 ft F to F

- **2fer Y2-01:** DS1-2 arriving, rope terminates · JMP-01 20 in jumper down to the next Wye
- **2fer Y2-02:** DS2-2 arriving, rope terminates · STR-01 6 ft straight down
- **DS3-2** passes this column with no Wye (rope only).

Before it flies ☐ every label reads IN toward the rack feeder, OUT away from it ☐ barrel on every rope joint, no bare NL4s ☐ Wye input tail is the only male end at a column ☐ rings + safeties on every pick (RING-01) ☐ run test lit from the rack before trim



US · US WIRE ROPE

Upstage wire rope, 3 runs x 2 pieces, pylon arms TOP / MID / LOW



1 · What plugs in from the rack (one feeder per run, IN end of piece 1)

Run	Where	Rack port	Feeder cable	Controller	px	sACN
US4	TOP arm	NL4-2	NL4-2 single, 16/3 NL4: 3x 20 ft + 1x 10 ft + barrels (70 ft) arrives at the TOP arm	CTRL B out 2 192.168.41.42	307	58 to 59
US5	MID arm	NL8-2 a	NL8-2 50 ft + 10 ft NL8 (16/6) + NL8MMX barrel, splitter OUTPUT 1 (8 ft tail) arrives at the MID arm (8 ft tail up)	CTRL B out 3 192.168.41.42	307	60 to 61
US6	LOW arm	NL8-2 b	NL8-2 50 ft + 10 ft NL8 (16/6) + NL8MMX barrel, splitter OUTPUT 2 (2 ft tail) arrives at the LOW arm (at the splitter)	CTRL B out 4 192.168.41.42	307	62 to 63

2 · Pieces in hang order (label on the rope = BBDB name + IN / OUT). Every rope joint = NL4MMX barrel.

Label	Cut / pixels	IN end lands at	OUT end lands at
BBDB US4-1 US4 piece 1 of 2	28'4" 173 px · 58.1 to 59.9	IN RACK FEEDER NL4-2 (barrel to the feeder NL4)	OUT NJCT 3 (USP, scenic truss) USWR-NJCT3 · 3fer Y3-01
BBDB US4-2 US4 piece 2 of 2	21'10" 134 px · 59.10 to 59.411	IN NJCT 3 (USP, scenic truss) USWR-NJCT3 · 3fer Y3-01 leaving side	OUT NJCT 4 (US end, scenic truss) USWR-NJCT4 · 2fer Y2-01
BBDB US5-1 US5 piece 1 of 2	28'4" 173 px · 60.1 to 61.9	IN RACK FEEDER NL8-2 a (barrel to the feeder NL4)	OUT NJCT 3 (USP, scenic truss) USWR-NJCT3 · 3fer Y3-02
BBDB US5-2 US5 piece 2 of 2	21'10" 134 px · 61.10 to 61.411	IN NJCT 3 (USP, scenic truss) USWR-NJCT3 · 3fer Y3-02 leaving side	OUT NJCT 4 (US end, scenic truss) USWR-NJCT4 · 2fer Y2-02
BBDB US6-1 US6 piece 1 of 2	28'4" 173 px · 62.1 to 63.9	IN RACK FEEDER NL8-2 b (barrel to the feeder NL4)	OUT NJCT 3 (USP, scenic truss) USWR-NJCT3 · 2fer Y2-03
BBDB US6-2 US6 piece 2 of 2	21'10" 134 px · 63.10 to 63.411	IN NJCT 3 (USP, scenic truss) USWR-NJCT3 · 2fer Y2-03 leaving side	OUT NJCT 4 (US end, scenic truss)

3 · Injector columns on this section (power only; see KG3-BEA-PWR-01 for lengths)

PWR-NJCT 3 USWR-NJCT3 USP split · mid span · top rope 3'5" below the pickup · fed by LMG retractor, box feed 10 ft F to F • 3fer Y3-01: US4-1 arriving, US4-2 leaving · JMP-01 20 in jumper down to the next Wye • 3fer Y3-02: US5-1 arriving, US5-2 leaving · JMP-02 20 in jumper down to the next Wye • 2fer Y2-03: US6-1 arriving, US6-2 leaving	PWR-NJCT 4 USWR-NJCT4 US end · ropes terminate · top rope 3'5" below the pickup · fed by LMG retractor, box feed 10 ft F to F • 2fer Y2-01: US4-2 arriving, rope terminates · JMP-01 20 in jumper down to the next Wye • 2fer Y2-02: US5-2 arriving, rope terminates · STR-01 6 ft straight down • US6-2 passes this column with no Wye (rope only).
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Before it flies ☐ every label reads IN toward the rack feeder, OUT away from it ☐ barrel on every rope joint, no bare NL4s ☐ Wye input tail is the only male end at a column ☐ rings + safeties on every pick (RING-01) ☐ run test lit from the rack before trim
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AUD · DS ROPE 1 (AUDIENCE PICKUPS)

Audience ropes on chain motors AP1 / AP2 / AP3, 2 runs x 3 pieces

AUD

1 · What plugs in from the rack (one feeder per run, IN end of piece 1)

Run	Where	Rack port	Feeder cable	Controller	px	sACN
AUD1	upper rope	NL8-5 a	NL8-5 50 ft + 25 ft NL8 (16/6) + NL8MMX barrel, splitter OUTPUT 1 (8 ft tail) arrives at the AUD1 via the 10 ft NL4 jumper	CTRL A out 4 192.168.41.41	568	50 to 53
AUD2	lower rope	NL8-5 b	NL8-5 50 ft + 25 ft NL8 (16/6) + NL8MMX barrel, splitter OUTPUT 2 (2 ft tail) arrives at the AUD2 at the splitter	CTRL B out 1 192.168.41.42	575	54 to 57

2 · Pieces in hang order (label on the rope = BBDB name + IN / OUT). Every rope joint = NL4MMX barrel.

Label	Cut / pixels	IN end lands at	OUT end lands at
BBDB AUD1-1 AUD1 piece 1 of 3	26'2" 160 px · 50.1 to 50.480	IN RACK FEEDER NL8-5 a (barrel to the feeder NL4)	OUT NJCT 5 (AP1 motor) DS1-NJCT5 · 3fer Y3-01
BBDB AUD1-2 AUD1 piece 2 of 3	33'4" 204 px · 50.481 to 52.72	IN NJCT 5 (AP1 motor) DS1-NJCT5 · 3fer Y3-01 leaving side	OUT NJCT 6 (AP2 motor) DS1-NJCT6 · 3fer Y3-01
BBDB AUD1-3 AUD1 piece 3 of 3	33'5" 204 px · 52.73 to 53.174	IN NJCT 6 (AP2 motor) DS1-NJCT6 · 3fer Y3-01 leaving side	OUT NJCT 7 (AP3 motor) DS1-NJCT7 · 2fer Y2-01
BBDB AUD2-1 AUD2 piece 1 of 3	27'2" 166 px · 54.1 to 54.498	IN RACK FEEDER NL8-5 b (barrel to the feeder NL4)	OUT NJCT 5 (AP1 motor) DS1-NJCT5 · 2fer Y2-02
BBDB AUD2-2 AUD2 piece 2 of 3	33'7" 205 px · 54.499 to 56.93	IN NJCT 5 (AP1 motor) DS1-NJCT5 · 2fer Y2-02 leaving side	OUT NJCT 6 (AP2 motor) DS1-NJCT6 · 2fer Y2-02
BBDB AUD2-3 AUD2 piece 3 of 3	33'5" 204 px · 56.94 to 57.195	IN NJCT 6 (AP2 motor) DS1-NJCT6 · 2fer Y2-02 leaving side	OUT NJCT 7 (AP3 motor)

3 · Injector columns on this section (power only; see KG3-BEA-PWR-01 for lengths)

PWR-NJCT 5 · AP1 DS1-NJCT5 Audience Pickup 1 · mid span · top rope 3'5" below the pickup · fed by KG3 fixed drop, 50 ft feed • 3fer Y3-01: AUD1-1 arriving, AUD1-2 leaving · JMP-01 64 in jumper down to the next Wye • 2fer Y2-02: AUD2-1 arriving, AUD2-2 leaving	PWR-NJCT 6 · AP2 DS1-NJCT6 Audience Pickup 2 · mid span · top rope 3'5" below the pickup · fed by KG3 fixed drop, 50 ft feed • 3fer Y3-01: AUD1-2 arriving, AUD1-3 leaving · JMP-01 104 in jumper down to the next Wye • 2fer Y2-02: AUD2-2 arriving, AUD2-3 leaving	PWR-NJCT 7 · AP3 DS1-NJCT7 Audience Pickup 3 · ropes terminate · top rope 3'5" below the pickup · fed by KG3 fixed drop, 50 ft feed • 2fer Y2-01: AUD1-3 arriving, rope terminates · STR-01 15 ft straight down • AUD2-3 passes this column with no Wye (rope only).
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Before it flies ☐ every label reads IN toward the rack feeder, OUT away from it ☐ barrel on every rope joint, no bare NL4s ☐ Wye input tail is the only male end at a column ☐ rings + safeties on every pick (RING-01) ☐ run test lit from the rack before trim



USR1 · US 1 RISER

Upstage riser 1, 3 single-piece runs, no injector (rack power only)

USR1

1 · What plugs in from the rack (one feeder per run, IN end of piece 1)

Run	Where	Rack port	Feeder cable	Controller	px	sACN
USR1-1	TOP arm	NL4-3	NL4-3 single, 16/3 NL4: 3x 20 ft + 1x 10 ft + barrels (70 ft) arrives at the TOP arm	CTRL C out 1 192.168.41.43	98	64
USR1-2	MID arm	NL8-3 a	NL8-3 50 ft + 10 ft NL8 (16/6) + NL8MMX barrel, splitter OUTPUT 1 (8 ft tail) arrives at the MID arm (8 ft tail up)	CTRL C out 2 192.168.41.43	98	65
USR1-3	LOW arm	NL8-3 b	NL8-3 50 ft + 10 ft NL8 (16/6) + NL8MMX barrel, splitter OUTPUT 2 (2 ft tail) arrives at the LOW arm (at the splitter)	CTRL C out 3 192.168.41.43	98	66

2 · Pieces in hang order (label on the rope = BBDB name + IN / OUT). Every rope joint = NL4MMX barrel.

Label	Cut / pixels	IN end lands at	OUT end lands at
BBDB USR1-1 USR1-1 piece 1 of 1	16'0" 98 px · 64.1 to 64.294	IN RACK FEEDER NL4-3 (barrel to the feeder NL4)	OUT far end (no injector)
BBDB USR1-2 USR1-2 piece 1 of 1	16'0" 98 px · 65.1 to 65.294	IN RACK FEEDER NL8-3 a (barrel to the feeder NL4)	OUT far end (no injector)
BBDB USR1-3 USR1-3 piece 1 of 1	16'0" 98 px · 66.1 to 66.294	IN RACK FEEDER NL8-3 b (barrel to the feeder NL4)	OUT far end (no injector)

3 · Power

No injector column on the risers: each run is under 17 ft and is powered from the rack through its own feeder. Nothing else to plug in.

Before it flies ☐ every label reads IN toward the rack feeder, OUT away from it ☐ barrel on every rope joint, no bare NL4s ☐ Wye input tail is the only male end at a column ☐ rings + safeties on every pick (RING-01) ☐ run test lit from the rack before trim



USR2 · US 2 RISER

Upstage riser 2, 3 single-piece runs, no injector (rack power only)

USR2

1 · What plugs in from the rack (one feeder per run, IN end of piece 1)

Run	Where	Rack port	Feeder cable	Controller	px	sACN
USR2-1	TOP arm	NL4-4	NL4-4 single, 16/3 NL4: 3x 20 ft + 1x 10 ft + barrels (70 ft) arrives at the TOP arm	CTRL D out 1 192.168.41.44	100	67
USR2-2	MID arm	NL8-4 a	NL8-4 50 ft + 10 ft NL8 (16/6) + NL8MMX barrel, splitter OUTPUT 1 (8 ft tail) arrives at the MID arm (8 ft tail up)	CTRL D out 2 192.168.41.44	100	68
USR2-3	LOW arm	NL8-4 b	NL8-4 50 ft + 10 ft NL8 (16/6) + NL8MMX barrel, splitter OUTPUT 2 (2 ft tail) arrives at the LOW arm (at the splitter)	CTRL D out 3 192.168.41.44	100	69

2 · Pieces in hang order (label on the rope = BBDB name + IN / OUT). Every rope joint = NL4MMX barrel.

Label	Cut / pixels	IN end lands at	OUT end lands at
BBDB USR2-1 USR2-1 piece 1 of 1	16'4" 100 px · 67.1 to 67.300	IN RACK FEEDER NL4-4 (barrel to the feeder NL4)	OUT far end (no injector)
BBDB USR2-2 USR2-2 piece 1 of 1	16'4" 100 px · 68.1 to 68.300	IN RACK FEEDER NL8-4 a (barrel to the feeder NL4)	OUT far end (no injector)
BBDB USR2-3 USR2-3 piece 1 of 1	16'4" 100 px · 69.1 to 69.300	IN RACK FEEDER NL8-4 b (barrel to the feeder NL4)	OUT far end (no injector)

3 · Power

No injector column on the risers: each run is under 17 ft and is powered from the rack through its own feeder. Nothing else to plug in.

Before it flies ☐ every label reads IN toward the rack feeder, OUT away from it ☐ barrel on every rope joint, no bare NL4s ☐ Wye input tail is the only male end at a column ☐ rings + safeties on every pick (RING-01) ☐ run test lit from the rack before trim



RACK · PXL CTRL RACK

SKB 4U rolling rack, OFFSTAGE (~30 ft ground run). Lid marked INPUT / OUTPUT faces the cable; lid marked ADVATEK ACCESS faces the controllers.

RACK

1 · Inputs (production supplies both)

Jack	What	Note
IN · powerCON TRUE1	120 V AC, one 20 A circuit	2x Mean Well UHP-1500-24 inside, about 12.9 A at full white. TRUE1 THRU is a pass-through only.
IN · etherCON x2	sACN from the console network	Controllers CTRL A to D = 192.168.41.41 to .44, /24. Spare CTRL E (boxed) = .45. Universes 41 to 69 live.

2 · Outputs (14 circuits on 5 NL8 + 4 NL4). NL8 = Pixel Data + Power Cable, 2 circuits (a / b).

Port	Run	Controller	IP	px	sACN	Cable on this port
OUT NL8-1 a	DS2	CTRL A out 2	192.168.41.41	369	44 to 46	NL8-1 50 ft + 10 ft NL8 (16/6) + NL8MMX barrel, splitter OUTPUT 1 (8 ft tail)
OUT NL8-1 b	DS3	CTRL A out 3	192.168.41.41	369	47 to 49	NL8-1 50 ft + 10 ft NL8 (16/6) + NL8MMX barrel, splitter OUTPUT 2 (2 ft tail)
OUT NL8-2 a	US5	CTRL B out 3	192.168.41.42	307	60 to 61	NL8-2 50 ft + 10 ft NL8 (16/6) + NL8MMX barrel, splitter OUTPUT 1 (8 ft tail)
OUT NL8-2 b	US6	CTRL B out 4	192.168.41.42	307	62 to 63	NL8-2 50 ft + 10 ft NL8 (16/6) + NL8MMX barrel, splitter OUTPUT 2 (2 ft tail)
OUT NL8-3 a	USR1-2	CTRL C out 2	192.168.41.43	98	65	NL8-3 50 ft + 10 ft NL8 (16/6) + NL8MMX barrel, splitter OUTPUT 1 (8 ft tail)
OUT NL8-3 b	USR1-3	CTRL C out 3	192.168.41.43	98	66	NL8-3 50 ft + 10 ft NL8 (16/6) + NL8MMX barrel, splitter OUTPUT 2 (2 ft tail)
OUT NL8-4 a	USR2-2	CTRL D out 2	192.168.41.44	100	68	NL8-4 50 ft + 10 ft NL8 (16/6) + NL8MMX barrel, splitter OUTPUT 1 (8 ft tail)
OUT NL8-4 b	USR2-3	CTRL D out 3	192.168.41.44	100	69	NL8-4 50 ft + 10 ft NL8 (16/6) + NL8MMX barrel, splitter OUTPUT 2 (2 ft tail)
OUT NL8-5 a	AUD1	CTRL A out 4	192.168.41.41	568	50 to 53	NL8-5 50 ft + 25 ft NL8 (16/6) + NL8MMX barrel, splitter OUTPUT 1 (8 ft tail)
OUT NL8-5 b	AUD2	CTRL B out 1	192.168.41.42	575	54 to 57	NL8-5 50 ft + 25 ft NL8 (16/6) + NL8MMX barrel, splitter OUTPUT 2 (2 ft tail)
OUT NL4-1	DS1	CTRL A out 1	192.168.41.41	369	41 to 43	NL4-1 single, 16/3 NL4: 3x 20 ft + 1x 10 ft + barrels (70 ft)
OUT NL4-2	US4	CTRL B out 2	192.168.41.42	307	58 to 59	NL4-2 single, 16/3 NL4: 3x 20 ft + 1x 10 ft + barrels (70 ft)
OUT NL4-3	USR1-1	CTRL C out 1	192.168.41.43	98	64	NL4-3 single, 16/3 NL4: 3x 20 ft + 1x 10 ft + barrels (70 ft)
OUT NL4-4	USR2-1	CTRL D out 1	192.168.41.44	100	67	NL4-4 single, 16/3 NL4: 3x 20 ft + 1x 10 ft + barrels (70 ft)

Before power-up ☐ all 9 output cables landed on the port that matches the RUN + TOP tape on the cable ☐ splitters: OUTPUT 1 up, OUTPUT 2 at the arm ☐ network cable in, link lights on all 4 Advateks ☐ TRUE1 last ☐ run test from the rack (bea.local) before anything leaves the deck



CONTROLLERS

4 x A4-S Mk3

CTRL A to D, 4 outputs each. CTRL E = road spare, not in rack.

OUTPUTS

14 live

5 x NL8 (two runs) + 4 x NL4 (one run).
C4 and D4 spare.

PIXELS

3,765 px

24 segments, WS2811 RGB, 20 px/m.

SACN

41-69

170 px/universe. 70-85 held for E. Clear from 86.

NETWORK

192.168.41.x

Gateway .1 A .41, B .42, C .43, D .44, E .45.

POWER

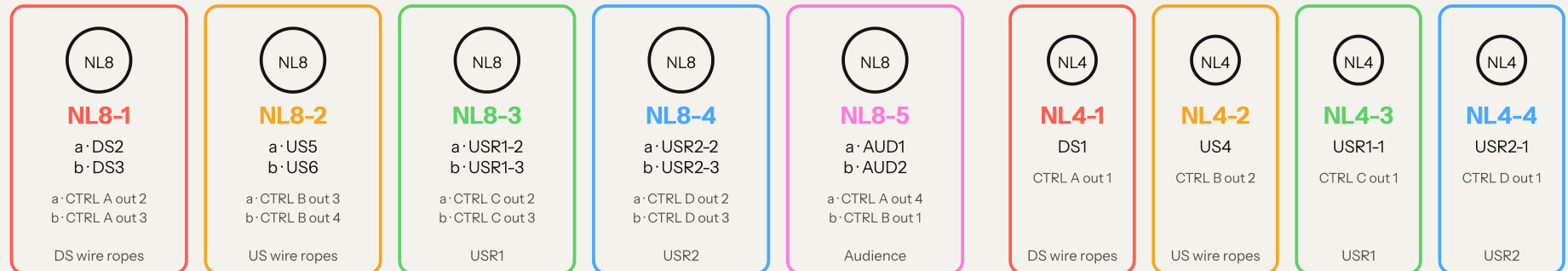
2 x UHP-1500-24

3,000 W, load 1,483 W. About 12.9 A @ 120 V, one TRUE1 feed.

Front panel: which port is which

PYLON PXL CTRL RACK · FRONT · OUTPUTS

5 x NL8 (2 runs each) + 4 x NL4 (1 run each) = 14 outputs



NL8 leg a / leg b = the two NL4 tails of the NL8 to 2x NL4 splitter at the top of the trunk. Colors match the lanes on bea.kg3.io/power.

Setting the rack up

1 Roll the rack to the pylon base

Front (outputs) faces the pylon feeders. Rear plate (TRUE1 + etherCON) faces the cable path from LX. Leave the rear open for air.

2 AC in

One TRUE1 feed into TRUE1 IN on the rear plate. TRUE1 THRU is a pass-through for the next thing on the same circuit. Rack draws about 12.9 A at 120 V, so give it its own 20 A circuit.

3 Network in

etherCON from the LX sACN switch into the rear plate. The second etherCON loops the network on. Controllers are static: CTRL A .41, B .42, C .43, D .44 on 192.168.41.x.

4 Plug the feeders by port label

Each NL8 trunk goes to its numbered NL8 port and splits to two NL4 tails at the top (leg a and leg b). Each NL4 single goes to its numbered NL4 port. The table below says which run is on which port. Match the port label on the rack to the label on the trunk.

5 Power up and test

Power the rack, then run the Advatek test pattern on each box (Advatek Assistant 3, red / green / blue). Every run should light in order from its rack end. If red and green are swapped on a run, change Color Order on all outputs of that box, never the patch.

6 Hand off to the console

Console sends sACN universes 41-69. Patch of record is the DMX Patch Map in the tech kit. 70-85 stay clear for CTRL E.

7 If a box dies

Swap in CTRL E. Import the dead box's .conf from the Controller Update Package, set the IP to the dead box's address, move the output cables across in the same order. The patch does not change.



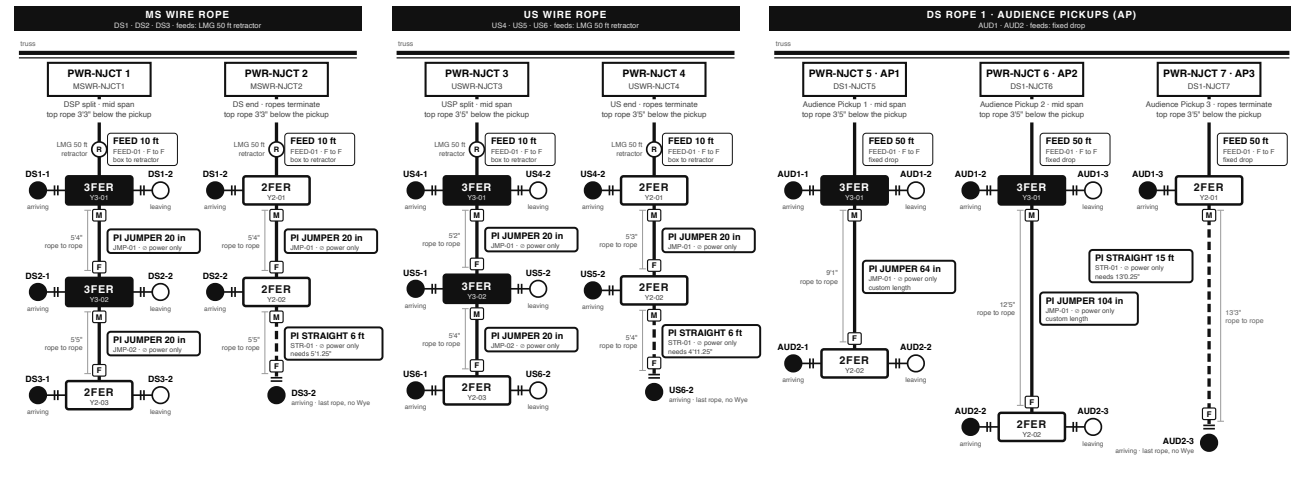
POWER INJECTION MAP

every 3fer, 2fer and PI cable (jumper or straight) with its length - power only, no data on this sheet - rope spacing drawn to scale

KGS-SEA-PWR-01 R3 - September 17, 2026

Beabadoobie 2026 Headline Tour - 7 PWR-NJCT columns - 12/3 SDOW throughout

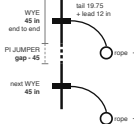
- 3FER** Y-3 molded Wye, 45 in: 1 in, 3 out (arriving rope + leaving rope + through to the run below) **2FER** Y-2 molded Wye, 45 in: 1 in, 2 out ● rope end arriving from the pylon side ○ rope start leaving || NL4MMX barrel at every rope lead (28)
- PI** Power-inject cable: 12/3 NL4, ALWAYS male to female, male end up toward the source ● yellow data conductor not landed at one end: power only R LMG's 50 ft retractor in the feed



PIECES ON THE RIG

Part	In Use	Spare	Where
3FER	Y-3	6	3 NJCT 1, 3 (two) - 5, 6 (one)
2FER	Y-2	9	3 NJCT 2, 4 (two) - rest (one)
PI jumper	20 in	6	3 NJCT 1, 3 (two) - 2, 4 (one)
PI jumper	64 in	1	0 AP1 - 15 ft spare covers it
PI jumper	104 in	1	0 AP2 - 15 ft spare covers it
PI straight	6 ft	2	3 NJCT 2, 4 to the last rope
PI straight	15 ft	1	1 AP3 to AUD2-3 - new build
Feeder	10 ft (F to F)	4	2 NJCT 1 to 4, box to retractor
Feeder	50 ft (F to F)	3	0 AP1, AP2, AP3 fixed drops

JUMPER MATH: WHY THE JUMPER IS SHORTER THAN THE ROPE GAP



The molded Wye hangs **45 in** end to end with its NL4s on (Kenny measured, Sep 1). Each Wye sits the same height above its own rope, so every rope gap = one Wye + one jumper. PI jumper = rope gap minus 45 in. The 64 in and 104 in land exactly on it.

Column	Rope gap	Need	Build	Stack
NJCT 1	54" = 64 in	19 in	20 in	+1
NJCT 1	55" = 65 in	20 in	20 in	0
NJCT 2	54" = 64 in	19 in	20 in	+1
NJCT 3	52" = 62 in	17 in	20 in	+3
NJCT 3	54" = 64 in	19 in	20 in	+1
NJCT 4	53" = 63 in	18 in	20 in	+2
AP1	91" = 109 in	64 in	64 in	0
AP2	129" = 149 in	104 in	104 in	0

Zero slack is inside the 0 to 3 in rule. The top Wye floats on the feeder: hang it an inch or two low and the whole column gains that margin.

HOW IT GOES TOGETHER

- Chain runs top down: box on the truss, feeder, first Wye at the top rope, PI jumper, next Wye. One injector feeds every rope in its column.
- 3FER where a rope joins mid span AND a run hangs below it. 2FER at the bottom rope of a mid span column and at every upper rope of an end column. The last rope of an end column gets a PI STRAIGHT, no Wye.
- PI = Power-Inject (Kenny, Sep 17): every jumper and straight here. 12/3, ALWAYS male to female, male end up. ● Power only; the yellow is not landed at one end, because the Wyes tie pin 1 minus across all legs.
- Female to female is NOT a PI cable. The 10 ft and 5 ft 12/3 NL4s stay female to female for SDR + power. Never put one between two Wyes: it would short one run's data to the next.
- Feeders are female to female (box panel connector to the male Wye input). Pin 1 minus is empty inside the box, so a feeder bridges nothing. Barrel at every rope lead.

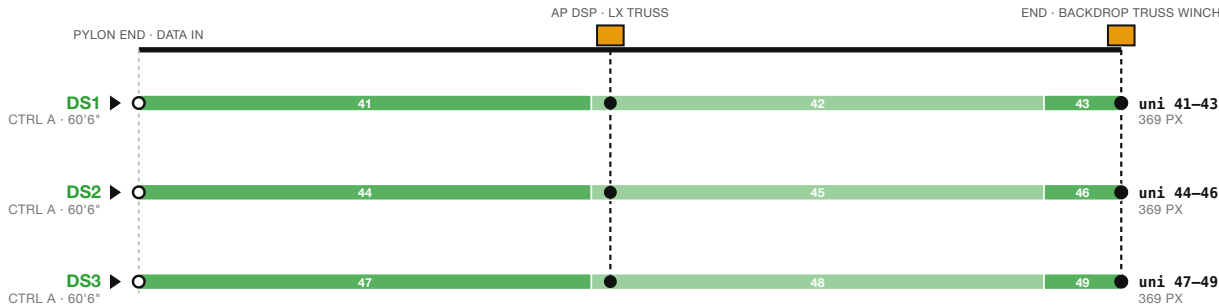
WHERE EACH COLUMN IS (JOSH SLADE SWR)

KGS ID	Josh's tab	Position
MSWR-NJCT1	MS / Winch 1	centerline, 193' US
MSWR-NJCT2	MS / Winch 2	29'10" SL, 12'11" US
MSWR-NJCT3	US / Winch 1	85' SL, 277' US
USWR-NJCT4	US / Winch 2	304' SL, 243' US
DS1-NJCT5 AP1	DS ROPE 1 / W1	20'11" SR, DS motor line
DS1-NJCT6 AP2	DS ROPE 1 / W2	152' SR, 62'10" DS of AP1
DS1-NJCT7 AP3	DS ROPE 1 / W3	97' SR, 657' DS of AP1

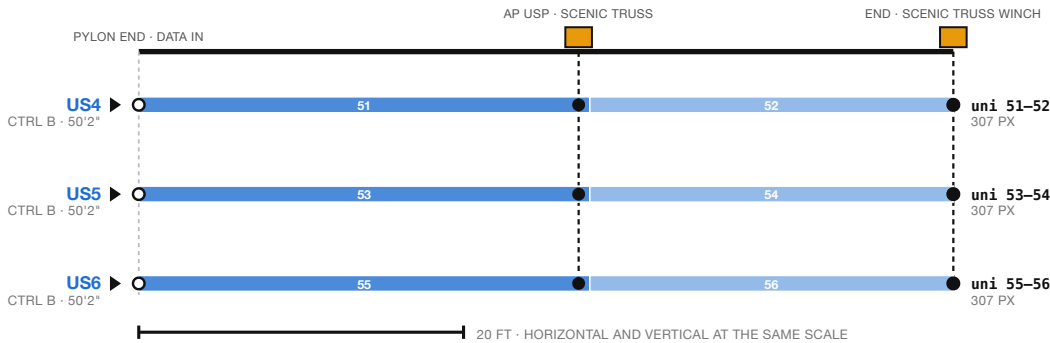
AP = Audience Pickup (Sheet 4.11: Audience Pickup 1, 2, 3). USR1 and USR2 have no injector: rack led only.

STAGE GROUPS · EVERY ROPE AT TRUE LENGTH AND TRUE 5'6" STACKING, SHADED BANDS ARE UNIVERSES

CABLES DS · 3 ROPES · INJECTORS FLOWN AT DSP + BACKDROP TRUSS



CABLES US · 3 ROPES · INJECTORS FLOWN AT USP + SCENIC TRUSS



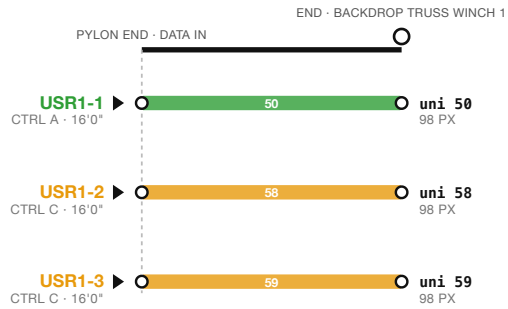
20 FT · HORIZONTAL AND VERTICAL AT THE SAME SCALE

CTRL A CTRL B CTRL C CTRL D PWR-NJCT injector Chain motor Rigging ring / dead pickup Tee tap · power injection 12/3 drop · 3fer / 2fer chain Data in from pylon

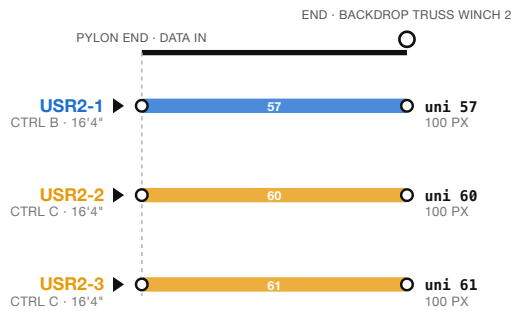
What this sheet shows that the patch table cannot. Every tee tap sits exactly where two rope segments meet, because the injection columns ARE the segment joins. Data enters each rope once at the pylon end and runs the whole length through the rope, so the universes climb left to right and pass straight through every tee. Nothing restarts at a join, and no universe boundary lines up with a physical join.

UPSTAGE RIGHT CABLES AND THE AUDIENCE ROPES · SAME SCALE AS PAGE 1

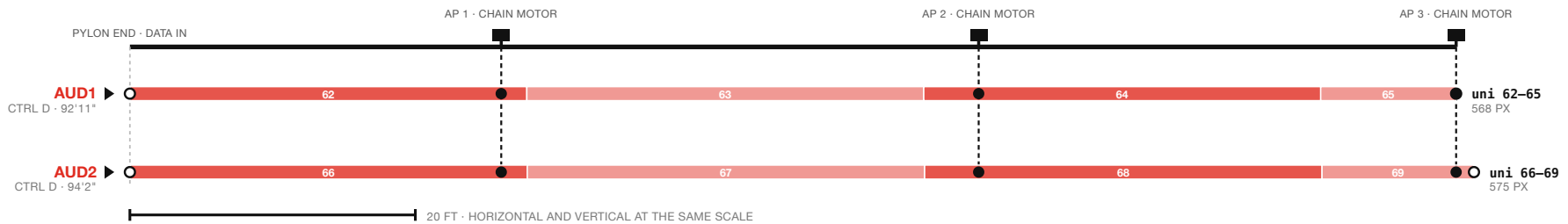
CABLES USR1 · 3 SEPARATE CABLES · SINGLE-END FED · NO INJECTOR



CABLES USR2 · 3 SEPARATE CABLES · SINGLE-END FED · NO INJECTOR



AUDIENCE CABLES · 2 ROPES · INJECTORS AT AP 1 / 2 / 3 ON CHAIN MOTORS, NO WINCH



CTRL A CTRL B CTRL C CTRL D PWR-NJCT injector Chain motor Rigging ring / dead pickup Tee tap · power injection 12/3 drop · 3fer / 2fer chain Data in from pylon

Why the top cable of USR1 and USR2 is a different colour. USR1-1 is on CTRL A and USR2-1 is on CTRL B, while the four cables below them are on CTRL C. Those top cables are the NL4 singles; the lower pairs each share one NL8 trunk, and an NL8 carries two circuits that must be fed from one controller. The singles are the flex that let four boxes cover fourteen outputs.



KG3-BEA-CHK-01 · Beabadoobie 2026 Headline Tour · 24 show pieces + 9 spares · September 2, 2026

LumiRope 360 22 mm black, 20 px/m, cut points every 50 mm. Cut = drawing length rounded UP to the next 50 mm. Never round down. Show pieces come out of 10 m and 11 m stock; USR out of 5 m.

at every column junction (factory lead is about 1 m, so about 27 in comes off). Measure from the rope, mark, then cut. Rack-fed IN ends and USR far ends: length per Kenny.

Every rope points the same way:
IN end = FEMALE, OUT end = MALE
 . The end arriving at a column is male (18),
 the end leaving is female (10). No male to
 male anywhere.

1+ RED = V + 24V
1- YELLOW = SPI data
2- BLACK = GND
2+ empty Label = band template, IN and
OUT on each piece. Test = power up, full
white, count pixels.

CUT	LEADS	LABEL	TEST	PIECE	DRAWING	CUT / PX	CONTROLLER	UNIVERSE.CH	ENDS	INIT / DATE
DS wire ropes (MS WIRE ROPE) · 6 pieces										
				DS1-1 seg 1 of 2 · DS1	30'0" 9.14 m	9,150 mm 183 px	CTRL A · out 1 NL4 single	41.1 to 42.39 run 41-43	IN F rack feeder OUT M NJCT 1 (DSP, LX truss) · 12 in	
				DS1-2 seg 2 of 2 · DS1	30'6" 9.30 m	9,300 mm 186 px	CTRL A · out 1 NL4 single	42.40 to 43.87 run 41-43	IN F NJCT 1 (DSP, LX truss) · 12 in OUT M NJCT 2 (DS end, backdrop truss) · 12 in	
				DS2-1 seg 1 of 2 · DS2	30'0" 9.14 m	9,150 mm 183 px	CTRL A · out 2 NL8 a	44.1 to 45.39 run 44-46	IN F rack feeder OUT M NJCT 1 (DSP, LX truss) · 12 in	
				DS2-2 seg 2 of 2 · DS2	30'6" 9.30 m	9,300 mm 186 px	CTRL A · out 2 NL8 a	45.40 to 46.87 run 44-46	IN F NJCT 1 (DSP, LX truss) · 12 in OUT M NJCT 2 (DS end, backdrop truss) · 12 in	
				DS3-1 seg 1 of 2 · DS3	30'0" 9.14 m	9,150 mm 183 px	CTRL A · out 3 NL8 b	47.1 to 48.39 run 47-49	IN F rack feeder OUT M NJCT 1 (DSP, LX truss) · 12 in	
				DS3-2 seg 2 of 2 · DS3	30'6" 9.30 m	9,300 mm 186 px	CTRL A · out 3 NL8 b	48.40 to 49.87 run 47-49	IN F NJCT 1 (DSP, LX truss) · 12 in OUT M NJCT 2 (DS end, backdrop truss) · 12 in	
US wire ropes (US WIRE ROPE) · 6 pieces										
				US4-1 seg 1 of 2 · US4	28'4" 8.64 m	8,650 mm 173 px	CTRL B · out 2 NL4 single	58.1 to 59.9 run 58-59	IN F rack feeder OUT M NJCT 3 (USP, scenic truss) · 12 in	
				US4-2 seg 2 of 2 · US4	21'10" 6.65 m	6,700 mm 134 px	CTRL B · out 2 NL4 single	59.10 to 59.411 run 58-59	IN F NJCT 3 (USP, scenic truss) · 12 in OUT M NJCT 4 (US end, scenic truss) · 12 in	
				US5-1 seg 1 of 2 · US5	28'4" 8.64 m	8,650 mm 173 px	CTRL B · out 3 NL8 a	60.1 to 61.9 run 60-61	IN F rack feeder OUT M NJCT 3 (USP, scenic truss) · 12 in	
				US5-2 seg 2 of 2 · US5	21'10" 6.65 m	6,700 mm 134 px	CTRL B · out 3 NL8 a	61.10 to 61.411 run 60-61	IN F NJCT 3 (USP, scenic truss) · 12 in OUT M NJCT 4 (US end, scenic truss) · 12 in	
				US6-1 seg 1 of 2 · US6	28'4" 8.64 m	8,650 mm 173 px	CTRL B · out 4 NL8 b	62.1 to 63.9 run 62-63	IN F rack feeder OUT M NJCT 3 (USP, scenic truss) · 12 in	
				US6-2 seg 2 of 2 · US6	21'10" 6.65 m	6,700 mm 134 px	CTRL B · out 4 NL8 b	63.10 to 63.411 run 62-63	IN F NJCT 3 (USP, scenic truss) · 12 in OUT M NJCT 4 (US end, scenic truss) · 12 in	
USR1 (US 1) · 3 pieces										
				USR1-1 seg 1 of 1 · USR1-1	16'0" 4.88 m	4,900 mm 98 px	CTRL C · out 1 NL4 single	64.1 to 64.294 run 64-64	IN F rack feeder OUT M far end (no injector)	
				USR1-2 seg 1 of 1 · USR1-2	16'0" 4.88 m	4,900 mm 98 px	CTRL C · out 2 NL8 a	65.1 to 65.294 run 65-65	IN F rack feeder OUT M far end (no injector)	
				USR1-3 seg 1 of 1 · USR1-3	16'0" 4.88 m	4,900 mm 98 px	CTRL C · out 3 NL8 b	66.1 to 66.294 run 66-66	IN F rack feeder OUT M far end (no injector)	
USR2 (US 2) · 3 pieces										

KG3 · Beabadoobee 2026 · LED Segment Checklist · live check-off at bea.kg3.io/chance Patch: sACN 41-69 · 3,765 px · lengths Sheet 4.11 V2.2 · pixels = ceil($m \times 20$)