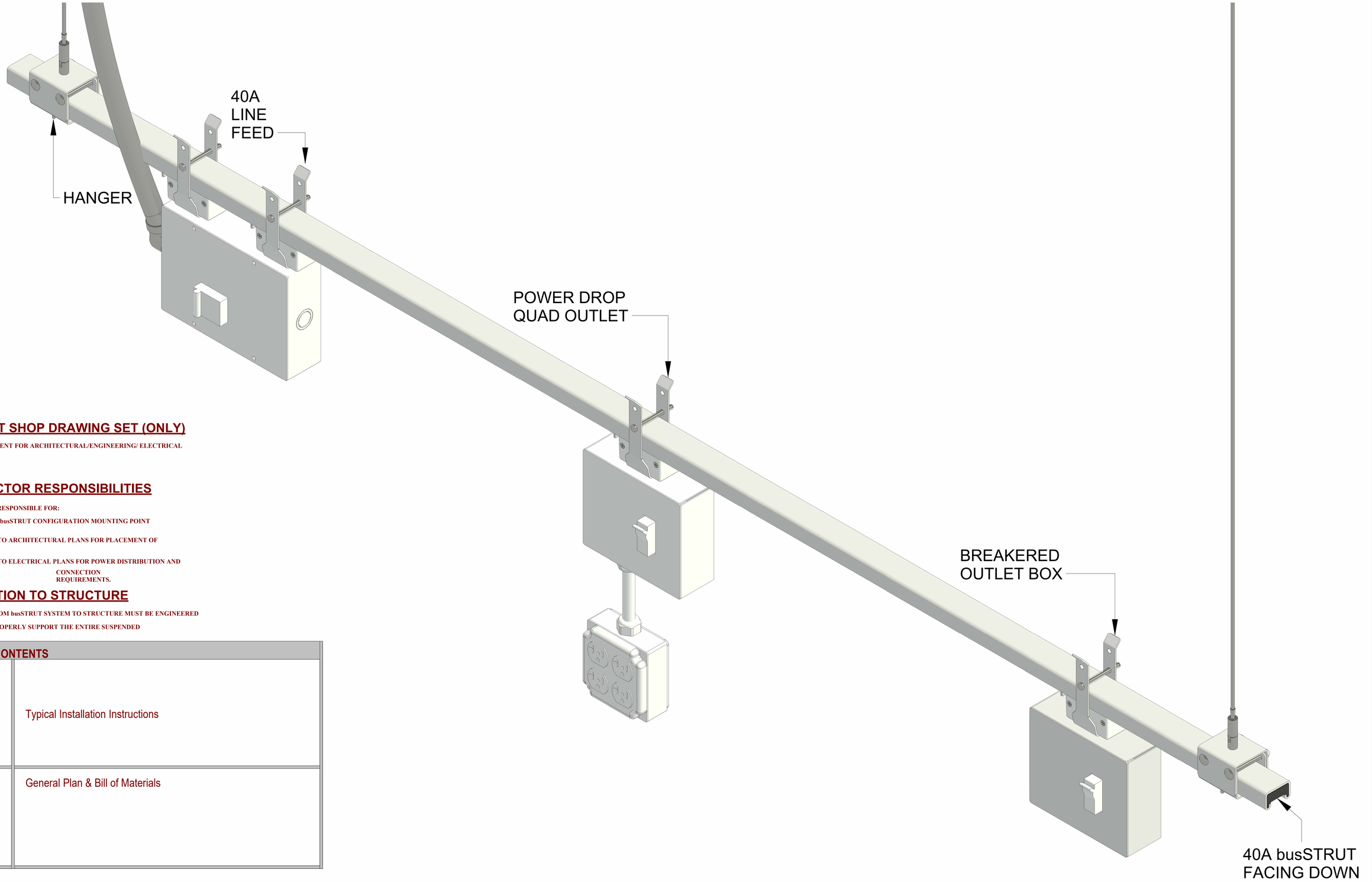
busSTRUT Shop Drawing Set

80A Single-Phase (2x40A) 120V Row



busSTRUT SHOP DRAWING SET (ONLY)

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(DEFER TO THEIR DRAWINGS)

CONTRACTOR RESPONSIBILITIES

CONTRACTOR IS RESPONSIBLE FOR:

1.- FOLLOWING busSTRUT CONFIGURATION MOUNTING POINT RULES.

2.- REFERRING TO ARCHITECTURAL PLANS FOR PLACEMENT OF LIGHTS.

3.- REFERRING TO ELECTRICAL PLANS FOR POWER DISTRIBUTION AND ELECTRICAL CONNECTION REQUIREMENTS.

CONNECTION TO STRUCTURE

ATTACHMENT FROM busSTRUT SYSTEM TO STRUCTURE MUST BE ENGINEERED AND INSTALLED TO PROPERLY SUPPORT THE ENTIRE SUSPENDED WEIGHT.

TABLE OF CONTENTS

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ISSUE DATE: 02/25/2025
ISSUED FOR: BID/REVIEW

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PAPER SIZE: ARCH E (48X36)
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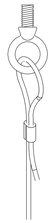
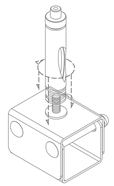
COVER SHEET

STEP 1

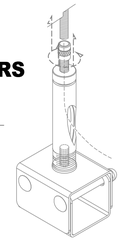
SUSPENDING busSTRUT



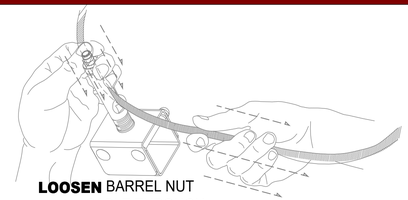
1
SUSPEND CABLES
(CG-XX)
ATTACH CABLE ASSEMBLY to STRUCTURE
*It is the contractor and/or engineer's responsibility to determine correct connection to structure (beam clamp, etc).



2
ASSEMBLE HANGERS
(HM-S)
ASSEMBLE HANGERS AND ATTACH CABLE GLIDE



3
ATTACH HANGERS TO CABLES
(CG-XX)
FEED CABLES THROUGH GLIDE TO ATTACH



LOOSEN BARREL NUT
PUSH CABLE THROUGH
PULL CABLE FOR SLACK

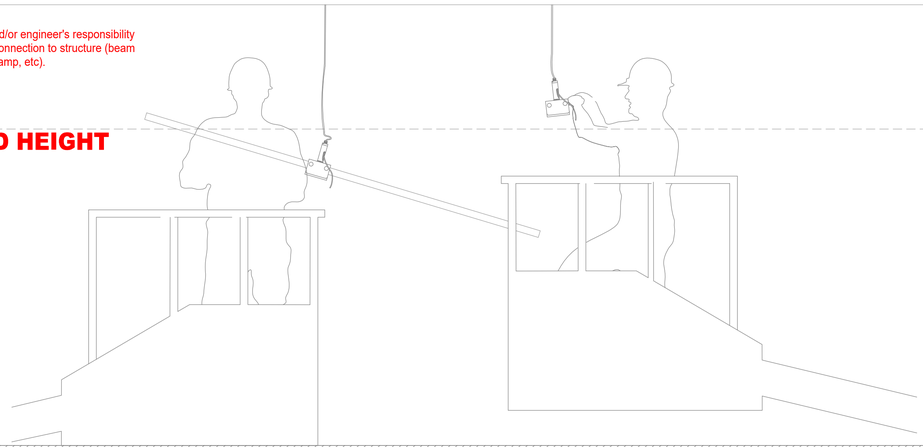
SLIDE busSTRUT THROUGH SUSPENDED HANGERS

Assemble

Create cable suspended runs of busSTRUT. *Usually, these are running perpendicular to structural joists.* **Insert** busSTRUT lengths through hangers/crossovers working from **FINISHED HEIGHT**.

*It is the contractor and/or engineer's responsibility to determine correct connection to structure (beam clamp, etc).

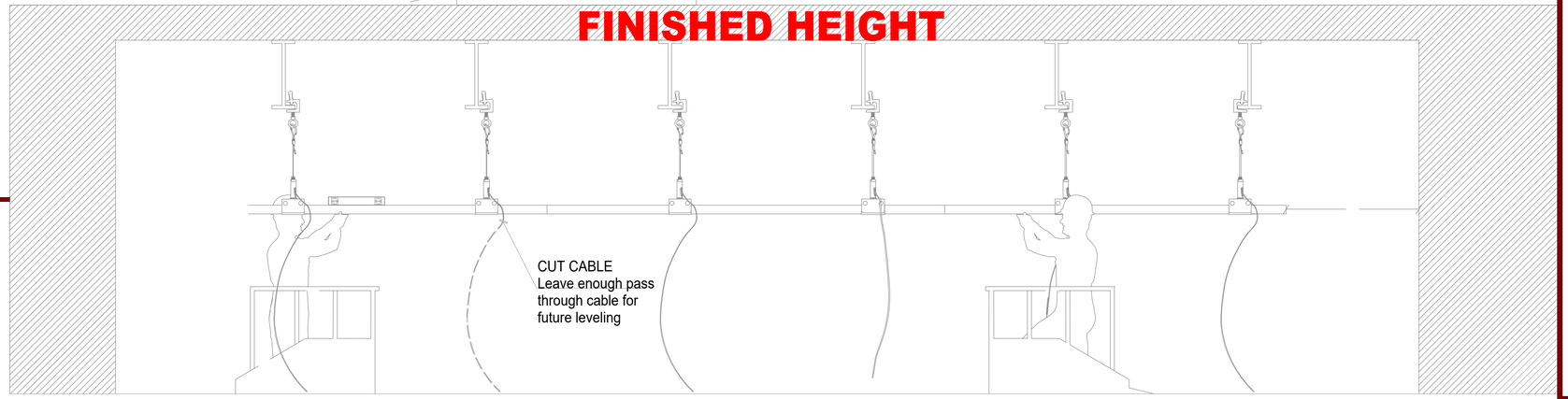
FINISHED HEIGHT



BE SURE TO FOLLOW busSTRUT MOUNTING RULES (SEE busSTRUT shop drawings)

LEVEL busSTRUT AND TRIM CABLE

FINISHED HEIGHT



CUT CABLE
Leave enough pass through cable for future leveling

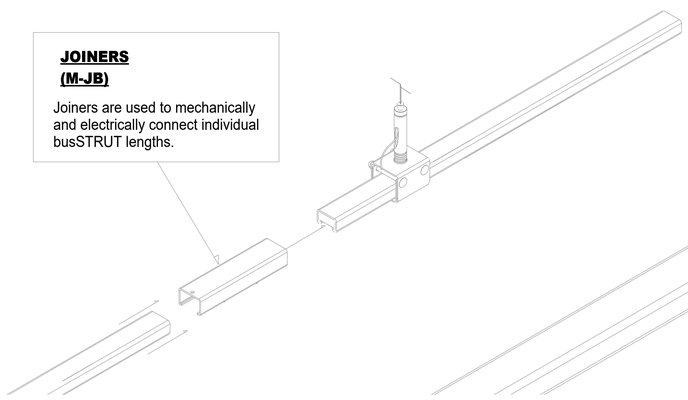
STEP 2

INSERT JOINERS

ATTACH JOINERS TO EACH END OF CONNECTING busSTRUT

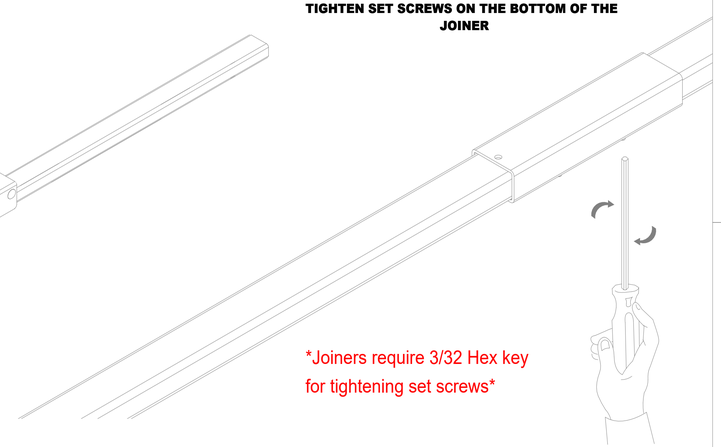
JOINERS
(M-JB)

Joiners are used to mechanically and electrically connect individual busSTRUT lengths.



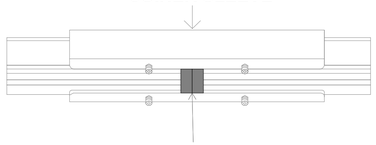
TIGHTEN JOINERS

TIGHTEN SET SCREWS ON THE BOTTOM OF THE JOINER



Joiners require 3/32 Hex key for tightening set screws

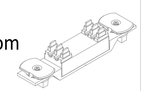
JOINER SLEEVE



CAUTION: Ensure end caps are flush and touching / connected -to-one-another inside joint.

JOINER INSERT
(M-JI-X)

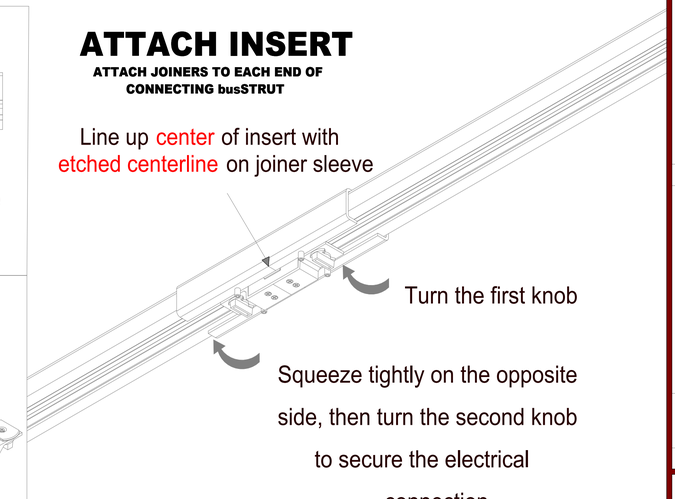
A single piece unit that is installed with two knobs, one must be fully turned in each abutting length. As a result, power can continue to flow from one length to the next.



ATTACH INSERT

ATTACH JOINERS TO EACH END OF CONNECTING busSTRUT

Line up center of insert with etched centerline on joiner sleeve



Turn the first knob

Squeeze tightly on the opposite side, then turn the second knob to secure the electrical connection.

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TYPICAL busSTRUT Installation Instructions

busSTRUT
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NO.	DESCRIPTION	DATE
XX	XXX	XX-XX-XX

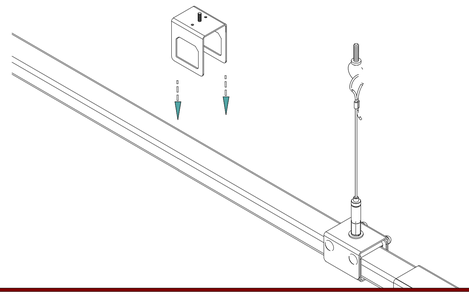
PAPER SIZE: ARCH E (48x36)
NOT TO SCALE
DRAWING NUMBER
E-b0.1

STEP 3

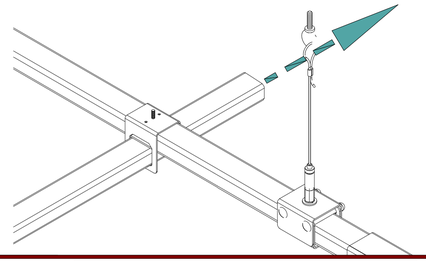
INSTALLING CROSSOVERS

DROPPING ON

Crosssovers can be dropped onto suspended busSTRUT to create an intersection with a perpendicular run of busSTRUT.

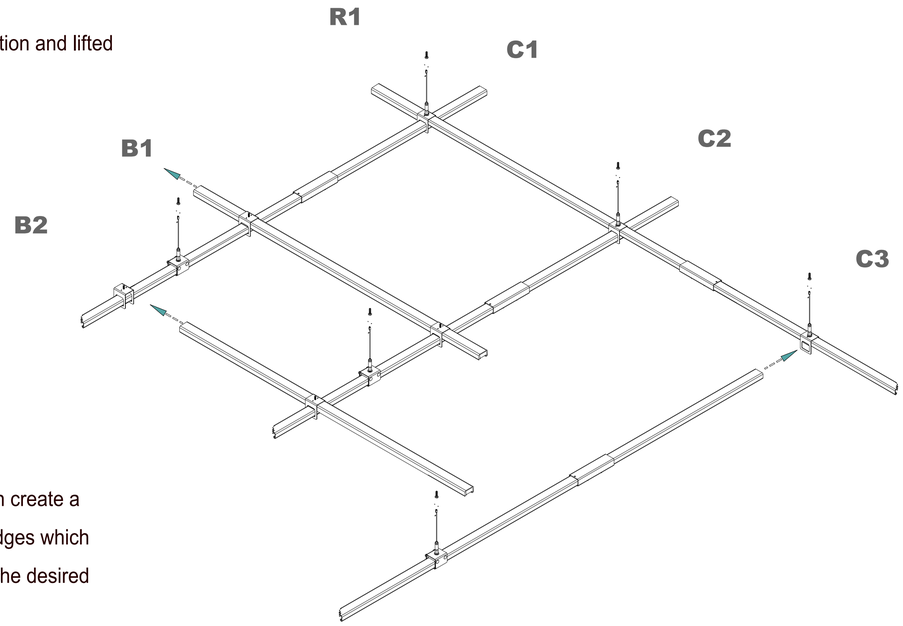


Slide perpendicular runs of busSTRUT through the crossover and tighten the set screws.



SLIDING ON

Crosssovers can be slid into position and lifted to create perpendicular bridges.

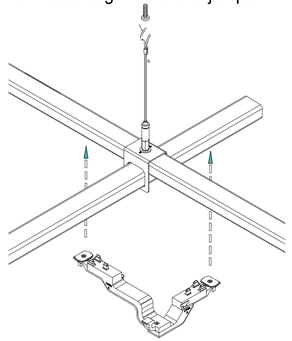


Perpendicular runs can create a full grid or be short bridges which are easily moved into the desired position.

STEP 4A

SLIMLINE JUMPER

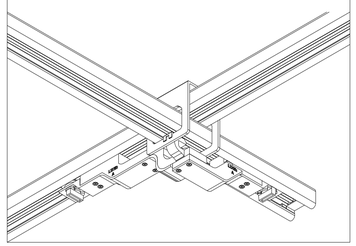
Make sure that the slimline crossover is tightened before attaching the slimline jumper.



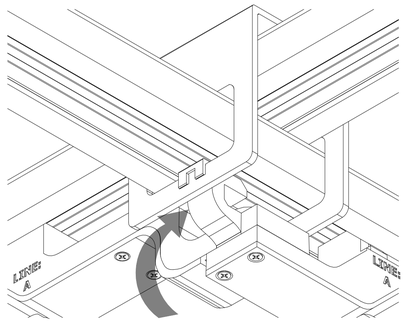
First, clip the jumper to the crossover.

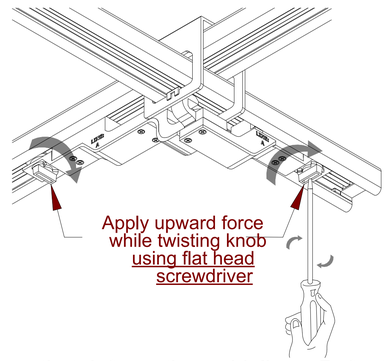
SLIMLINE JUMPER (MD2020-UNIV-IJ-B-X)

A single piece unit that is installed with two knobs, one must be fully turned in each abutting length. As a result, power can continue to flow from one length to the next.



Seat the jumper into the busSTRUT by squeezing tightly on one side and turning the knob. Then, turn the other knob to complete the circuit.

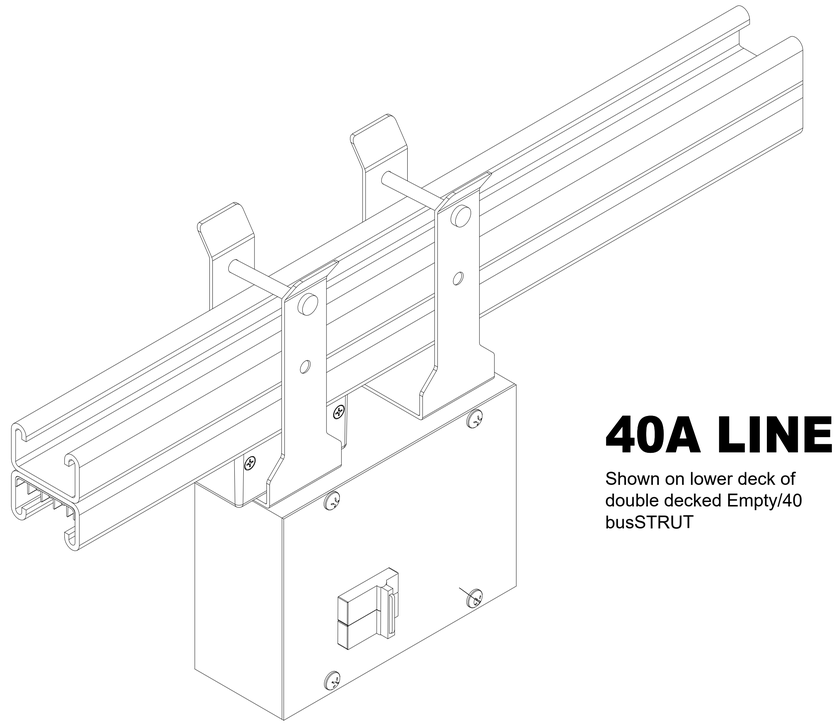




STEP 4B

LINE FEEDS

Install line feeds on busSTRUT to power the configuration.



40A LINE FEED

Shown on lower deck of double decked Empty/40 busSTRUT

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TYPICAL
busSTRUT Installation Instructions

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XX	00/00/0000
XXX	DESCRIPTION
XX - XX - XX	DATE
A	CHK

PAPER SIZE: ARCH E (48x36)
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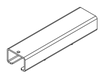
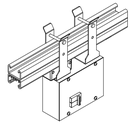
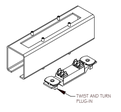
busSTRUT Parts

busSTRUT END	CABLE GLIDES	HANGERS	JOINERS	LINE FEEDS
SINGLE DECK: 20 AMPS M20-3-40-V-(L)				
SINGLE DECK: 40 AMPS M40-3-80-V-(L)		HM-S	M-JB	P40-3-80-UNIV-CB40-B
SINGLE DECK: EMPTY-STRUT M00-(L)				CROSSOVERS
DOUBLE DECK: DOUBLE-STRUT (PHASE (TYP.), NEUTRAL (TYP.), PHASE (TYP.)) NOTE: CIRCUITS 'A' AND 'B' ON BOTTOM CIRCUITS 'C' AND 'D' ON TOP	CG-(LENGTH)	 HD-S	 D-JB	 ICD-S

busSTRUT : 12 gauge 1" x 1" x 1-5/8" STEEL busSTRUT features two Hot wires symmetrically surrounding a center Neutral. The result, two 20 Amp circuits 40 Amps Maximum with busSTRUT /20, alternatively two 40 Amp circuits 80 Amps Maximum with busSTRUT /40. 2.5', 5', 10', and 20' lengths. Rated for up to 277/480V. Double decks with standard hardware for trunking.

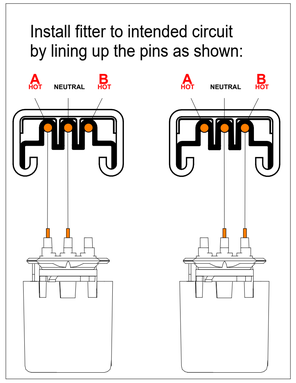
BRAIDED CABLE with GLIDE: For use with busSTRUT Hangers/Crossovers. Includes cable-glide and cable with factory assembled cable looped threaded 1/4-20" eye bolt.

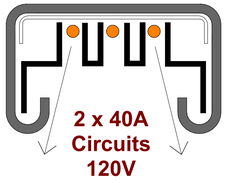
HANGERS: Single and Double Hangers are for use with busSTRUT . Each is an assembled two-part unit. The upper piece includes a threaded stud for use with busSTRUT cable-glide.

JOINERS: Single and Double are for use with busSTRUT . Lengths are joined together mechanically with the 8" steel sleeve. Electrical Joiner-Kits include both a Twist & Turn Plug-In electrical insert to bridge power. And continuous grounding exists through the bus itself by means of a permanently affixed copper grounding bar.

LINE FEEDS: For use with Line Feeding single-decked busSTRUT . Junction Box features energy code type "limiters" (breakers/fuse holders) and 3 Pole Fitters. Available up to 277/480. Can be positioned anywhere along busSTRUT to reduce the lengths of homeruns.

CROSSOVERS: For use with intersecting busSTRUT . Each is an assembled two-part unit for building grid configurations and bridges . The upper piece includes a threaded stud for use with busSTRUT cable-glide.





Legend

- busSTRUT 40A / Single Deck Facing Up
- 40A Line Feed
- Power Drop Quad Box
- Breakered Outlet Box

Bill of Materials

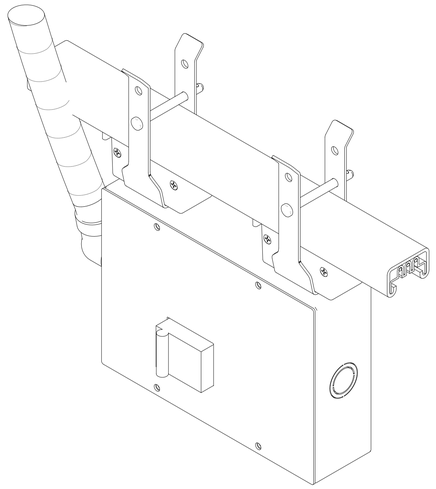
busSTRUT Parts Total				
Type Comments	Type	Ampacity	Rated Voltage	Count
CABLE GLIDE	CG-15-G			2
DROP	MD15-2-120-CB15-DC-19-W-SB	15 A	120 V	1
DROP	MD40-2-120-CB15-OB-SB-W White	15 A	120 V	1
FEED	P40-3-80-UNIV-CB40-W	40 A	277 V	1
HANGER	HM-S-W WITH 15' CABLE GLIDE			2
LENGTH	M40-3-80-277-07-G-2B	40 A	277 V	1
Grand total				8

Labor Hours

busSTRUT provides time-tested standard labor hours per part, which are then multiplied by the project's Bill of Materials.

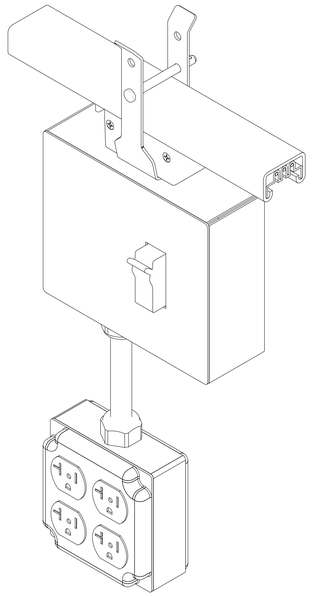
Labor Hrs					
Type Comments	Manufacturer	Count	Standardized Labor Min	Standardized Labor Hrs	Total Hrs
DROP	busSTRUT	2	8.00 min	0.13 h	0.27 h
FEED	busSTRUT	1	15.00 min	0.25 h	0.25 h
HANGER	busSTRUT	2	25.00 min	0.42 h	0.83 h
LENGTH	busSTRUT	1	2.75 min	0.05 h	0.05 h
Grand total					1.40 h

ISO Details

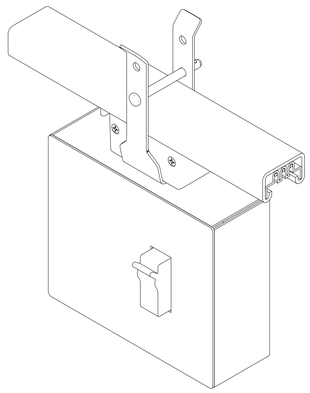


A 40 AMP FEED (BREAKERED) ON SINGLE DECKED busSTRUT
N.T.S.

DROPPING POWER



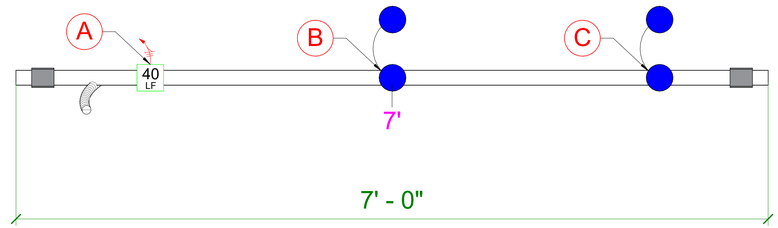
B POWER DROP QUAD BOX
N.T.S.



C BREAKERED OUTLET BOX
N.T.S.

busSTRUT Plan

Coordination of Power/Data drops to equipment detailed on Sheet E-b3 Circuiting Plan.



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PROJECT ADDRESS

General Plan & Bill of Materials

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