STARLINE
TRACK BUSWAY

Product Selection & Layout Guide

- Introduction
- Systems
- Monitoring
- Application Briefs
- Layout
- Specifications
- Submittals

VERSION 2.03

SELECTION GUIDE INTRODUCTION

This guide was developed to help the design engineer understand and consider all the options available with STARLINE Track Busway when designing a system that meets or exceeds the requirements of the project. This guide is by no means all-inclusive. UNIVERSAL Electric Corp. is willing to work with the designer to provide solutions for any application. If you have a need that is not found in this guide, please feel free to contact us at 1-800-333-3490. We will answer your questions over the telephone or have a visit scheduled with one of our local representatives. We would also welcome any comments regarding additional material that you feel should be included to help gain a more complete understanding of STARLINE Track Busway. Please direct all comments to: www.info@uecorp.com

Also, you may want to visit our Website at www.uecorp.com. There are case studies of existing installations in a variety of industries that may help you clarify your specific design needs.

STARLINE Track Busway was designed to meet the needs of industrial facilities and commercial buildings. Features were incorporated that met the rugged specification of UL857, Busway and Associated Fittings, with the flexible features of track lighting.

STARLINE Track Busway is comprised of 3 physical sizes with 11 different electrical system configurations. Systems range from 40 Amp at 480V all the way through 225 Amp at 600 V with Isolated Ground. This SELECTION GUIDE has been organized to allow the viewer to link to all viewing options by clicking on the buttons that appear as: Sample Button (EXCEPT FOR THE MAIN MENU, i.e. Title Page). These action buttons are normally found at the bottom of each page. On the MAIN MENU or Title Page, you simply click on the appropriate subtitle.

RETURN TO MAIN MENU

STARLINE TRACK BUSWAY

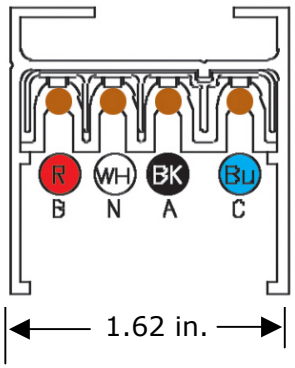
SYSTEM SELECTION

SYSTEM DESCRIPTION	SIZE
40 Amp to 480 Volt (B40)	1.62" X 1.61"
50 Amp to 480 Volt (B50)	1.62" X 1.61"
Compact 60 Amp to 480 Volt (B60C)	1.62" X 1.61"
60 Amp to 600 Volt (B60)	2.58" X 1.79"
Compact 100 Amp to 600 Volt (B100C)	2.58" X 1.79"
100 Amp to 600 Volt (B100)	4.187" X 2.375"
160 Amp to 600 Volt (B160)	4.187" X 2.375"
225 Amp to 600 Volt (B225)	4.187" X 2.375"

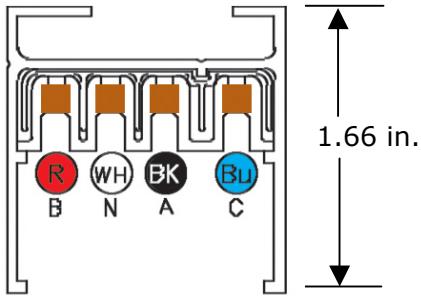
RETURN TO MAIN MENU

Compact B40/50/60 Amp System to 480 Volts

Four-Pole 40/50Amp



Four-pole 60Amp



End Cap

Tee Connector

Support Hardware

Coupler

Power Feed

Housing Section

In-Line Connector

Plug-In Selection

Elbow Connector

RETURN TO MAIN MENU

Back to SYSTEM SELECTION

Compact Series
40, 50, 60 Amp

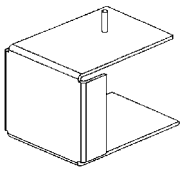
STARLINE TRACK BUSWAY

CONNECTION ACCESSORIES

END CAP
For insulating female end of Busway.

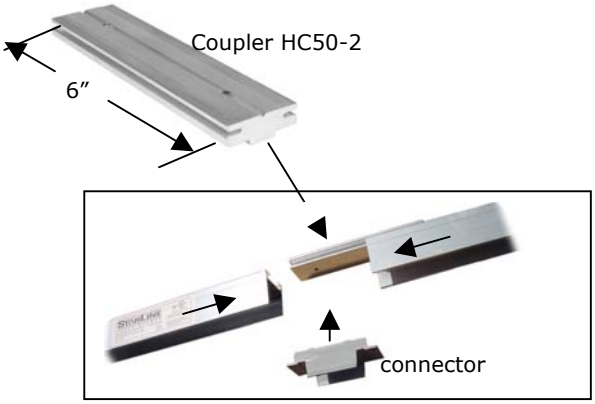
PART NUMBER
EC50

WEIGHT
0.2 lb



COUPLERS
Plate Type
For concealed connecting Busway sections. One required.

PART NUMBER
HC50-2
WEIGHT
0.8 lb



CLOSURE STRIP
Made of white, rigid PVC, the closure strip is used to close the continuous access slot of the Busway. It may be used for aesthetic purposes, for keeping dust and dirt from entering the Busway or as an added safety measure. It is easily cut to length in the field to be installed between plug-in units.

PART NUMBER
CS50
WEIGHT

RETURN TO MAIN MENU

BACK TO HOUSINGS

BACK TO SYSTEM VIEW

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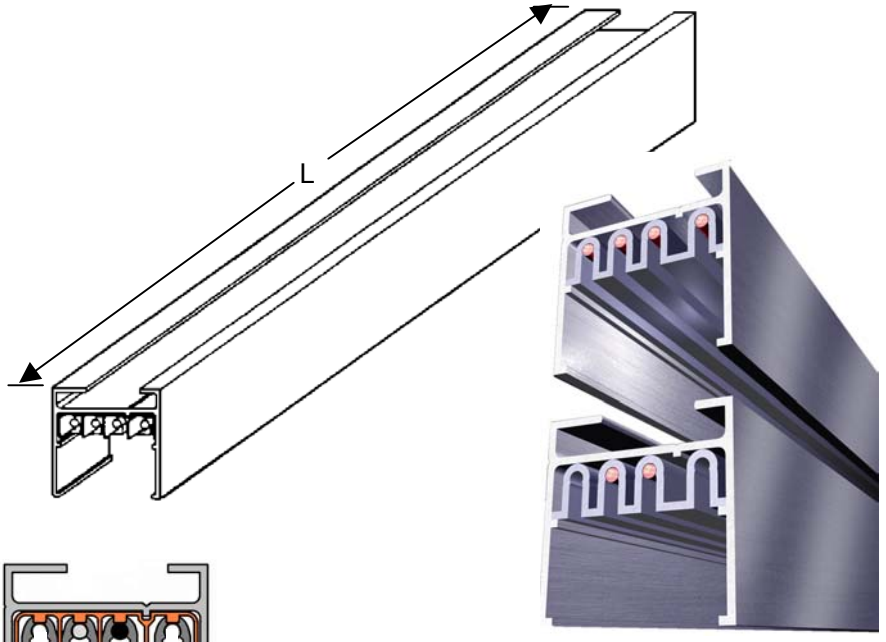
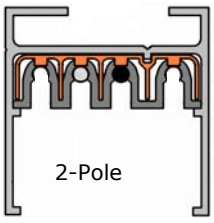
Compact Series
40, 50, 60 Amp

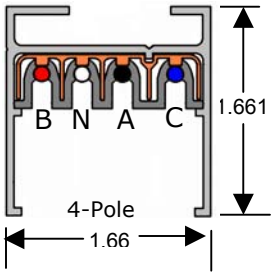
STARLINE TRACK BUSWAY

HOUSING SECTIONS

Each Track Busway housing section consists of an extruded aluminum housing with an insulated strip containing copper conductors mounted on the top interior wall. The aluminum extrusion acts as a 100% ground path meeting UL 857 Standard and complies with applicable paragraphs of Section 250 of the NEC. Each housing section has an open access slot over its entire length for the insertion of snap-in plug-in units. Configurations include 2 and 4 pole varieties, rated at 40/50/60 Amp continuous duty, 480/277 Volts max. Housing sections are connected together using snap-in, in-line connectors and plate type housing couplers . Sections are supported every 10 ft max. Support Hardware **and can support 75lbs hanging weight between vertical supports. Four-pole Busway is normally used in phase/4-wire power systems. Four-pole Busway may be used for 2 independent single phase circuits at different voltages. Sections can be factory cut to any length.**







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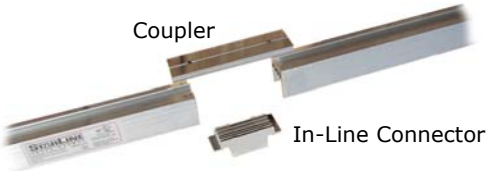
Coupler



In-Line Connector

Completed Connection

Coupler

Catalog Number Sequence

B(XX)–(L)–(P)

- Number of Poles 2 or 4
- Length 5, 10 or 20 ft
- System Size 40, 50, 60 Amp

Catalog Number Selection

Catalog No.	Description	Length*	Weight
B40-5-2 or 4	40 Amp, 2 or 4 pole	5 ft	3.5/4 lb
B40-10-2 or 4	40 Amp, 2 or 4 pole	10 ft	7/8 lb
B40-20-2 or 4	40 Amp, 2 or 4 pole	20 ft	13/15lb
B50-5-2 or 4	50 Amp, 2 or 4 pole	5 ft	3.5/4 lb
B50-10-2 or 4	50 Amp, 2 or 4 pole	10 ft	7/8 lb
B50-20-2 or 4	50 Amp, 2 or 4 pole	20 ft	13/15lb
B60C-5-2 or 4	60 Amp, 2 or 4 pole	5 ft	4/4.5 lb
B60C-10-2 or 4	60 Amp, 2 or 4 pole	10 ft	8/9 lb
B60C-20-2 or 4	60 Amp, 2 or 4 pole	20 ft	15/17lb

*** End section can be field cut to any length**

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Compact Series
40, 50, 60 Amp

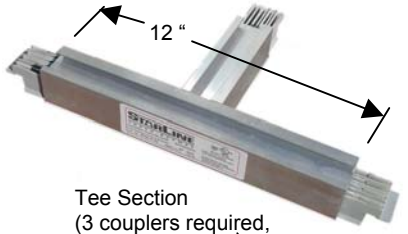
STARLINE TRACK BUSWAY

ELBOW & TEE SECTIONS

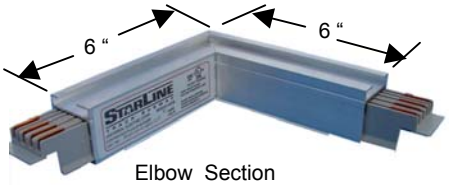
Elbow Connector
Factory pre-assembled elbow sections are used for making a 90-degree turn. Elbows are connected to Busway sections electrically by means of built-in bus connectors. Connectors are installed by "snapping" into position with housing section butted together. Connectors are polarized to prevent phase mismatch. Housings are then mechanically joined via couplers, ordered separately. Refer to LAYOUT for polarization issues before making final selection.

Tee Connector
Similar to Elbow Connectors, Tee Connectors are used for connecting branch housing sections at 90 degrees to the main run. Refer to LAYOUT for polarization issues before making final selection.

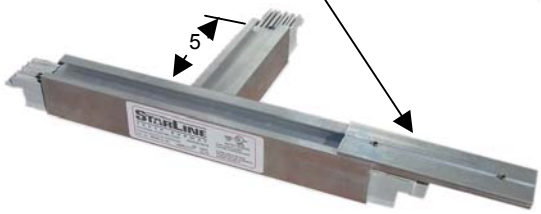
Crossover
Typically used for grid designs. Four (4) couplers (ordered separately) are required. Refer to LAYOUT for selection.

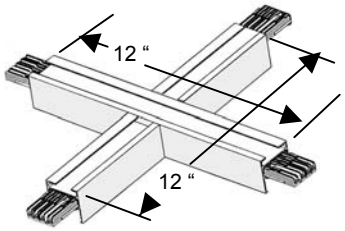


Tee Section
(3 couplers required,
order separately)



Elbow Section
(2 couplers required,
order separately)





Crossover Section (same plane)
(4 couplers required, ordered
separately

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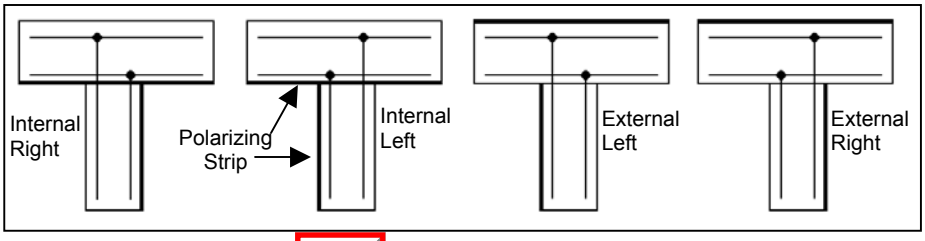
NOTE: Elbow, Tee and Crossover sections can connect only to adjoining straight housing sections



Please refer to LAYOUT prior to final product selection

Catalog Number Sequence

(XX)(AA)–(P)–(DIR)

- **Direction** — **Refer to LAYOUT**
- **System Poles**
- **System Size**
- **Connector Type**
  - **EL = Elbow**
  - **BT = Busway Tee**
  - **BC = In-Line Connector**
  - **X = Crossover**

Catalog Number Selection

Catalog No.	Description	Weight
EL40-2-(IH or EH)	Elbow Connector, 40 Amp, 2 Pole	0.5 lb
EL40-4-(IH or EH)	Elbow Connector, 40 Amp, 4 Pole	0.5 lb
EL50-2-(IH or EH)	Elbow Connector, 50 Amp, 2 Pole	0.5 lb
EL50-4-(IH or EH)	Elbow Connector, 50 Amp, 4 Pole	0.5 lb
EL60C-2-(IH or EH)	Elbow Connector, 60 Amp, 2 Pole	0.5 lb
EL60C-4-(IH or EH)	Elbow Connector, 60 Amp, 4 Pole	0.5 lb
BT40-4IR	Tee Connector, 4 Pole, Internal Right	1.0 lb
BT50-4IL	Tee Connector, 4 Pole, Internal Left	1.0 lb
BT60C-4ER	Tee Connector, 4 Pole, External Right	1.0 lb
BT60C-4EL	Tee Connector, 4 Pole, External Left	1.0 lb
X40- 2 or 4	Crossover, 40 Amp 2 or 4-pole	1.5 lb
X50- 2 or 4	Crossover, 50 Amp 2 or 4-pole	1.5 lb
X60C- 2 or 4	Crossover, 60 Amp 2 or 4-pole	1.5 lb

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BACK TO SYSTEM VIEW

Compact Series
40, 50, 60 Amp

POWER FEED UNITS

End Power Feed - EF
Consists of a steel junction box with removable side, a connector to insert into the Busway run and terminal block for field connections. Unit is bolted to first Busway section. Rated at 480/277 Volts.

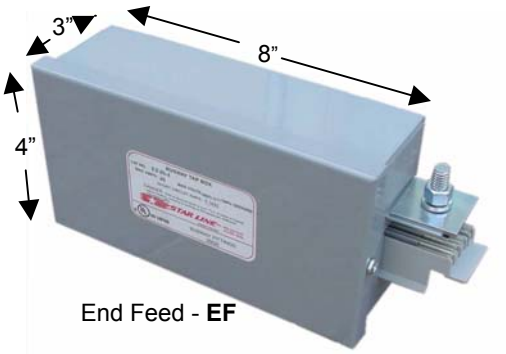
End Feed Concealed - EFC
Provide an inconspicuous means for connecting power. Consists of a 1 foot section of Busway with connector mounted inside and wire lead exiting through end cap. A 1" conduit mounting adapter is included. Housing Coupler (HC50-2, ordered separately) is used to connect to Busway section.

Center Feed - CF
Consists of a 2 ft section of Busway with connectors at both ends to connect to adjacent Busway sections and junction box mounted on top with terminal block for field connection.

Pendant Wired – PW
Consists of 1 ft Busway section with 1" conduit size access hole for access to connection leads inside Busway. 1" conduit mounting adapter included.

Catalog Number Sequence
(XX)(AA)–(X)

- **Poles 2 or 4**
- **System Size**
- **EF= End Feed**
  EFC = End Feed Concealed
  CF = Center Feed
  PW = Pendant Wired



End Feed - **EF**


End Feed installed

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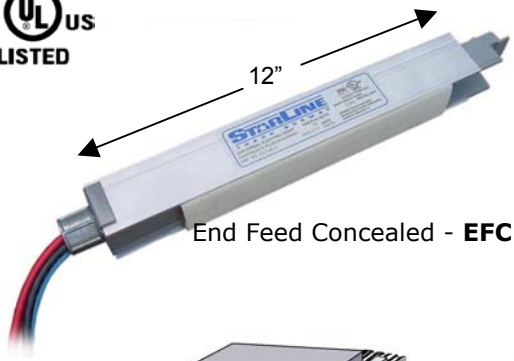
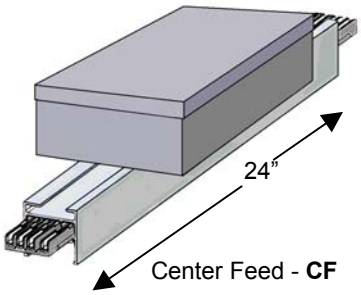
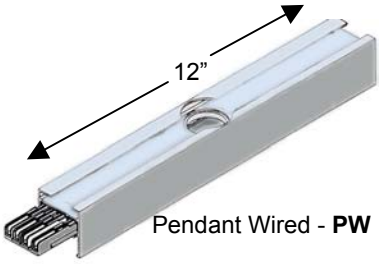


End Feed Concealed - **EFC**


Installed



Center Feed - **CF**



Pendant Wired - **PW**

Catalog Number Selection

Catalog No.	Description	Weight
EF40-X	End Feed, 40 Amp	3.3 lb
EF50-X	End Feed, 50 Amp	3.3 lb
EF60C-X	End Feed, 60 Amp	3.3 lb
EFC40-X	End Feed, Concealed, 40 Amp	2 lb
EFC50-X	End Feed, Concealed, 50 Amp	2 lb
EFC60C-X	End Feed, Concealed, 60 Amp	2 lb
CFB40-X	Center Feed, 40 Amp	5 lb
CFB50-X	Center Feed, 50 Amp	5 lb
CFB60C-X	Center Feed, 60 Amp	5 lb
PW40-X	Pendant Wired, 40 Amp	2 lb
PW50-X	Pendant Wired, 50 Amp	2 lb
PW60C-X	Pendant Wired, 60 Amp	2 lb

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BACK TO SYSTEM VIEW

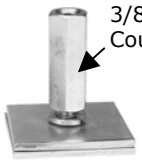
For Compact Series 40, 50, 60 Amp & Standard B60 & B100C Systems

STARLINE TRACK BUSWAY

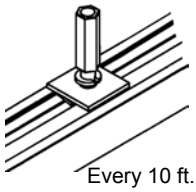
SUPPORT HARDWARE

Threaded Rod Hanger
For mounting to 3/8-16 threaded rod. Can be inserted anywhere along full access top slot of Busway. Typical hanger support spacing every 10 ft maximum.

PART NUMBER
RHB-3
WEIGHT
0.3 lb

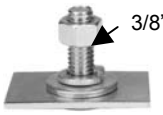


RHB-3 Threaded Rod Hanger

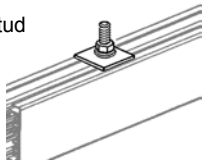

Every 10 ft.

Standard
For mounting to strut or other flat surfaces. Twist-in design allows inserting anywhere along top full access slot.

PART NUMBER
THB-3 3/8″
THB-1/4 ¼″
WEIGHT
0.2 lb

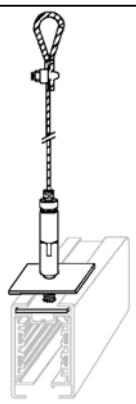


THB-3 Standard Hanger



Cable
For mounting to 1/16" or 3/32” aircraft cable with easy grip clamp assembly. Cable is not included.

PART NUMBER
ACH-1 1/16″ Cable
ACH-2 3/32″ Cable
WEIGHT
0.2 lb


ACH-(X)
Cable Suspension Assembly

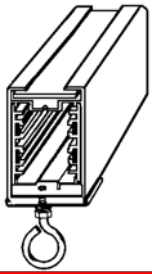
T-Bar Suspended Ceiling
For mounting to inverted T-bar. Clip locks onto T-bar and Busway connected to stud on clip.

PART NUMBER
THB-4
WEIGHT
0.1 lb

Weight Hook
Can be used as a hanger to suspend Busway from chains or cables. Can also be used to hang loads up to 50 lbs under the Busway, such as light fixtures, tools and balancers

PART NUMBER
WHR-1

WEIGHT
0.2 lb.



RETURN TO MAIN MENU
Return To Housing Sections
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BACK TO SYSTEM VIEW

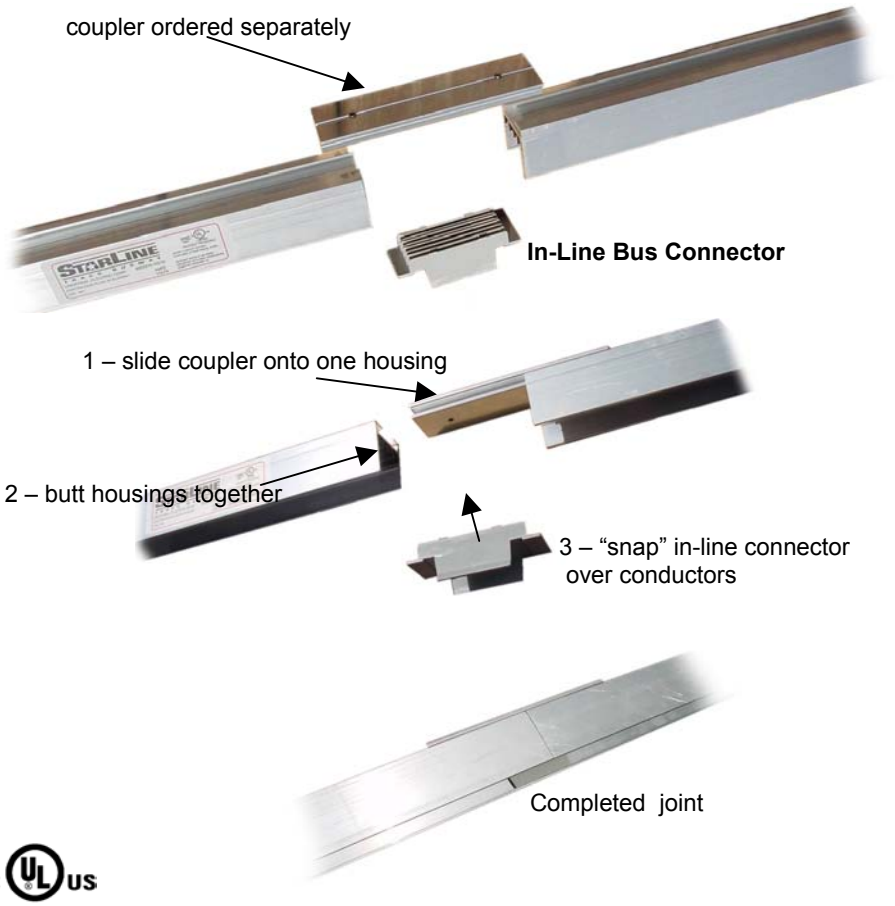
Compact Series
40, 50, 60 Amp

STARLINE TRACK BUSWAY

IN-LINE BUS CONNECTORS

In-Line Connector

Sections of Busway are joined electrically by means of an in-line connector. The connector is installed by "snapping" into position with housing section butted together. All in-line bus connectors are polarized to prevent phase mismatch. Housing are mechanically joined via a coupler, ordered separately. The mechanical coupler also acts as 100% ground connection.



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Catalog Number Sequence

BC(AA)–(P)

- **(P)** → System Poles
- **(AA)** → System Size
- **BC** → BC = In-Line Connector

Catalog Number Selection

Catalog No.	Description	Weight
BC50-2*	In-Line Connector, 2 Pole, 50A max	0.1 lb
BC50-4*	In-Line Connector, 4 Pole, 50A max	0.1 lb
BC60C-2	In-Line Connector, 2 Pole, 60A max	0.1 lb
BC60C-4	In-Line Connector, 4 Pole, 60A max	0.1 lb

* Used for both 40 & 50 Amp systems

RETURN TO MAIN MENU
BACK TO HOUSINGS
BACK TO SYSTEM VIEW

Compact Series
40, 50, 60 Amp

STARLINE TRACK BUSWAY

FOR SUSPENDED CEILING

Busway sections (shown in red) are available in 20, 10 and 5 ft lengths for three standard drop or suspended ceiling configurations.

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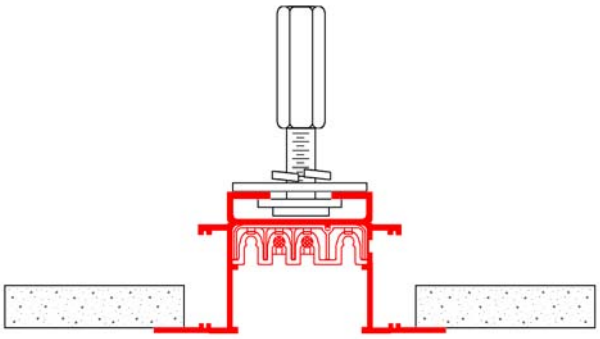
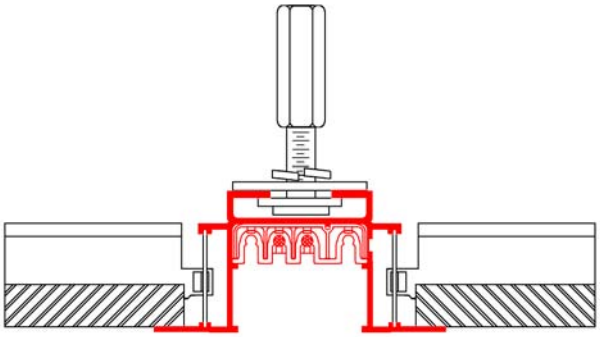
Dry Wall

Add "R" for " recessed" to basic housing part number. Example: B50R-20-4 for a 20ft section of B50, 4-pole housing.



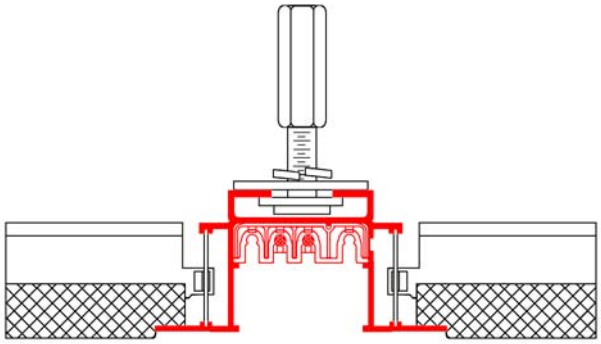
Standard Tile

Add "R" for " recessed" to basic housing part number. Example: B50R-20-4 for a 20ft section of B50, 4-pole housing.



Tegular Tile

Add "R" for " recessed" to basic housing part number. Example: B50R-20-4 for a 20ft section of B50, 4-pole housing.



RETURN TO MAIN MENU | Back to HOUSING SECTION | Back to SYSTEM VIEW

Compact Series
40, 50, 60 Amp

STARLINE TRACK BUSWAY

PLUG-IN SELECTION

Outlet or Junction Boxes

Fused Duplex Receptacles

Pre-Assembled Drop Cords

Circuit Breakers

Fused Disconnects

Internal Plug (concealed)

RETURN TO MAIN MENU

Back to SYSTEM VIEW

Compact Series
40, 50, 60 Amp

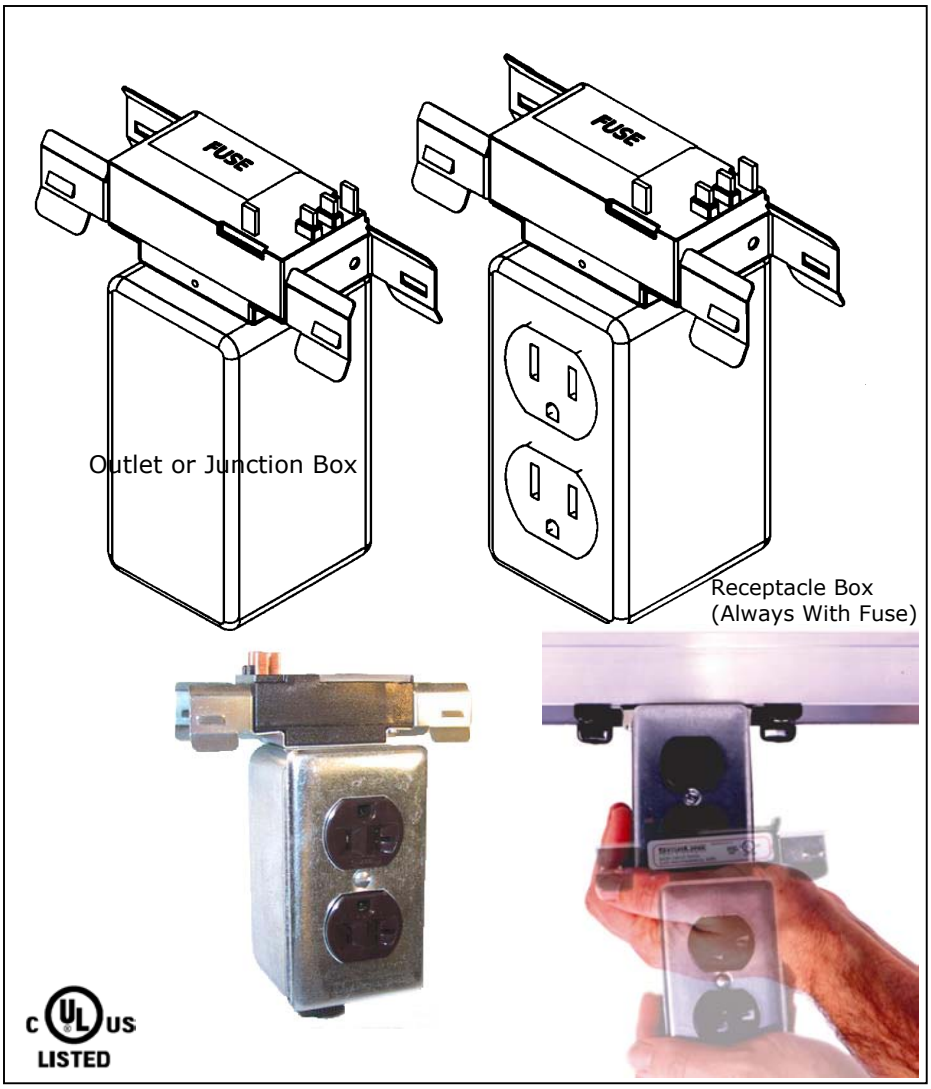
STARLINE TRACK BUSWAY

POWER PLUG-IN UNITS

Outlet Plug-In units are used to tap off power from the Busway. All plug-in units are equipped with a special plug head called a "Starjack" which "snaps" into the Busway continuous slot to make the spring-loaded connection. The installer simply inserts the unit into the Busway until a "clicking" sound is heard on each side of the connector. The snap-in connector provides ground connection for the box and load. All plug-in units are polarized to inhibit reverse installation.

A. Outlet or Junction Box
Standard unit consists of J-box with connector, cover, ground lug and wire nuts. Optional fuse holders available.

B. Receptacle Box
Standard unit consists of J-box with connector, NEMA 5-15 or 5-20 duplex receptacle, fuse and fuse holder. Other NEMA configurations available.



Catalog Number Sequence
(XXX)–(A)–(P)-XF

- **No. of fuses**
- **Number of Poles**
- **Amp Rating**
- **OB= Outlet Box**
  DRF = Duplex Receptacle

Catalog Number Selection * used in 40, 50 & 60C systems

Catalog No.	Description	Weight
OB50-30-2	Junction Box, 30A, 2-pole*	1.2 lb
OB50-30-4	Junction Box, 30A, 4-pole*	1.2 lb
OB50-30-4-XF	Junction Box, 30A, 4-pole*	1.3 lb
DRF50-20-A	Duplex, 20A, 2-pole, A-phase*	1.4 lb
DRF50-20-B	Duplex, 20A, 2-pole, B-phase*	1.4 lb
DRF50-20-C	Duplex, 20A, 2-pole, C-phase*	1.4 lb

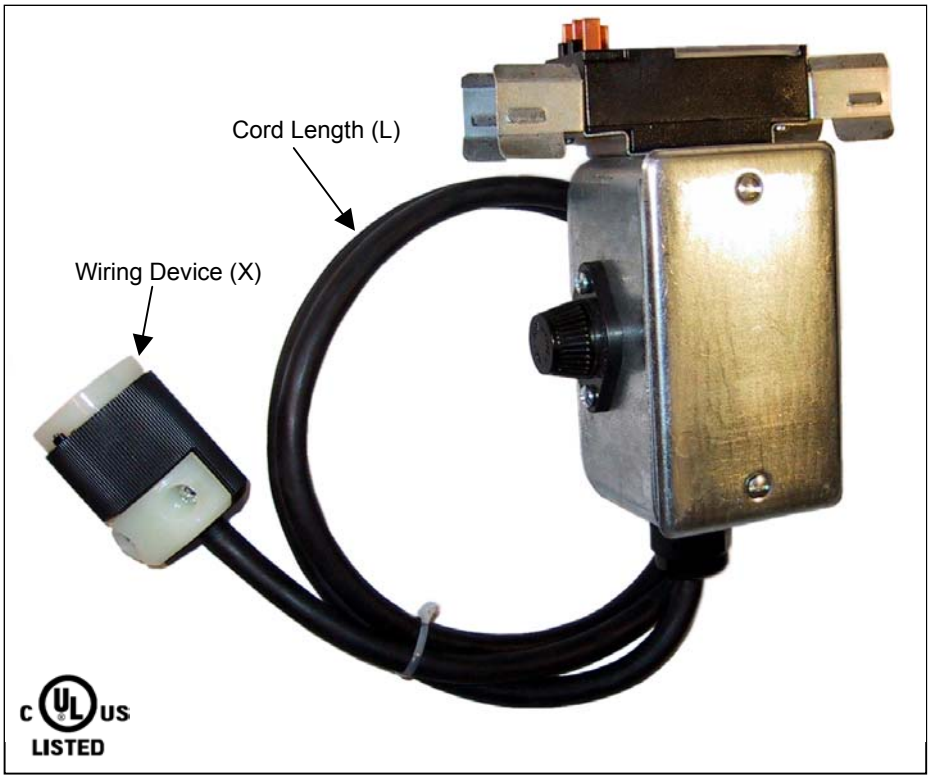
RETURN TO MAIN MENU
Return to PLUG-IN SELECTION
BACK TO SYSTEM VIEW

Compact Series
40, 50, 60 Amp

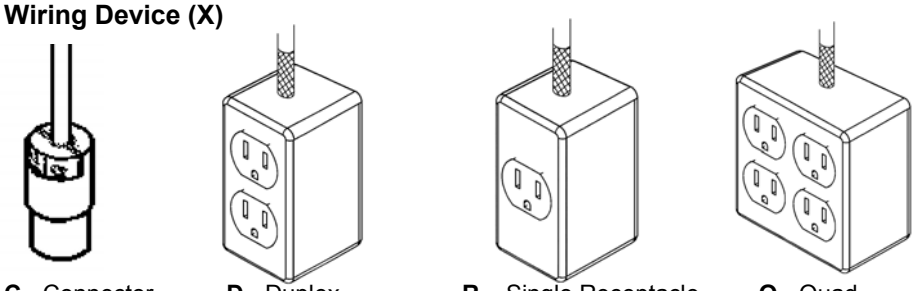
STARLINE TRACK BUSWAY

DROP CORD PLUG-IN

Drop Cord Assembly
Shipped assembled complete from the factory based on part number selection including cord, fuses, and wiring device. Drop Cord assemblies with connector type (C) wiring device include a wire mesh cord grip at outlet of plug-in box. All other assemblies include wire mesh cord grips at both end of cord. SJO cord is used in all assemblies. Other NEMA configurations available.



Wiring Device (X)



C - Connector **D** - Duplex **R** – Single Receptacle **Q** - Quad

Catalog Number Sequence
DC50-(L)–(NEMA)(X) –(Y)

- **Poles**
- **Wiring Device**
  - **C – Connector**
  - **D – Duplex**
  - **R – Single Receptacle**
  - **Q- Quad**
- **NEMA Configuration**
- **Cord Length**
- **For 40, 50 & 60C Systems**
- **Drop Cord**

Catalog Number Examples (many more available)

Catalog No.	Description
DC50-10-520D-4	10 ft Drop Cord with NEMA 5-20 Duplex on end, for 4-pole system
DC50-15-L520C-2	15ft Drop Cord with NEMA L5-20 (locking type) Connector on end for 2-pole system
DC50-8-L630R-4	8ft Drop Cord with NEMA L6-30 (locking type) single Receptacle (J-Box) on end for 4-pole system

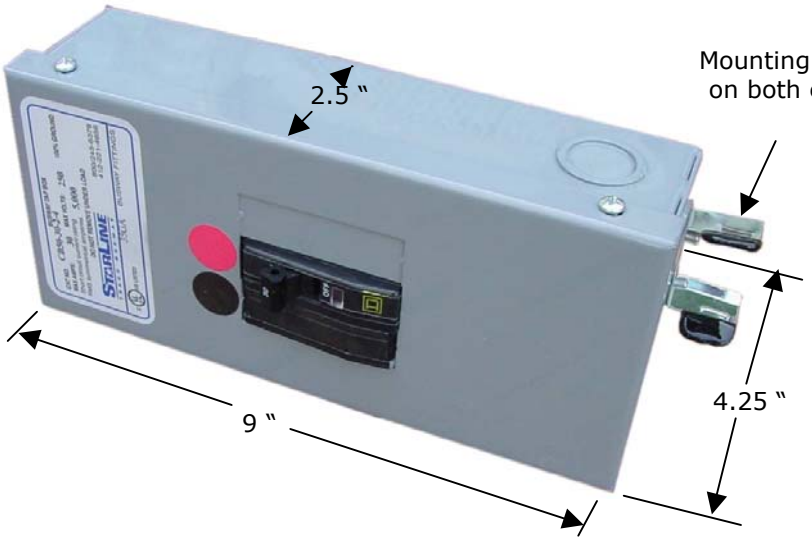
RETURN TO MAIN MENU | Back to PLUG-IN SELECTION | Back to SYSTEM VIEW

Compact Series
40, 50, 60 Amp

STARLINE TRACK BUSWAY

CIRCUIT BREAKER PLUG-IN

Circuit Breaker
Consists of a full-size junction box with hinged lid, plug head and an externally operated circuit breaker. The circuit breaker plug-in is inserted into the busway until mounting clips "snap" into place. The units are normally supplied with breakers installed. Units can be supplied with mounting plate only to allow installation of snap-on breakers in the field. Optional factory-installed receptacles can be added. Circuit breakers can be 15 to 30 amps, 240 volts, and 1,2 or 3 poles. Units with UL Listed multiple breakers are available. Units include copper grounding lug in the box that fits up to #6 wire, mounting tabs and mounting hardware to secure unit to Busway. Units have 1/2 " and ¾" conduit knockouts on 3 sides.



Circuit Breaker installed on STARLINE

c UL us LISTED

Catalog Number Sequence
(XX)50–(ww)–(p)-(volt)-(P)

- **System poles**
- **Voltage rating**
  - **CB=240**
  - **FD=480**
- **Breaker or Disconnect Poles**
- **Amp rating 15 to 30**
- **CB=Circuit Breaker**
  FD=Fused Disconnect

Catalog Number Selection

Catalog No.	Description	Weight
CB50-ww-1-240-2	1-pole Circuit Breaker, , 2-pole Busway	3.3 lb
CB50-ww-2-240-2	2-pole Circuit Breaker, , 2-pole Busway	3.7 lb
CB50-ww-1-240-4	1-pole Circuit Breaker, , 4-pole Busway	3.3 lb
CB50-ww-2-240-4	2-pole Circuit Breaker, , 4-pole Busway	3.7 lb
CB50-ww-3-240-4	3-pole Circuit Breaker, , 4-pole Busway	4.2 lb
FD50-30-3-480-4	Fused Disconnect, 30A, 3P, 480V For 4-pole Busway	4.2 lb

"ww" = specify the ampere rating, 15 to 30 amps.

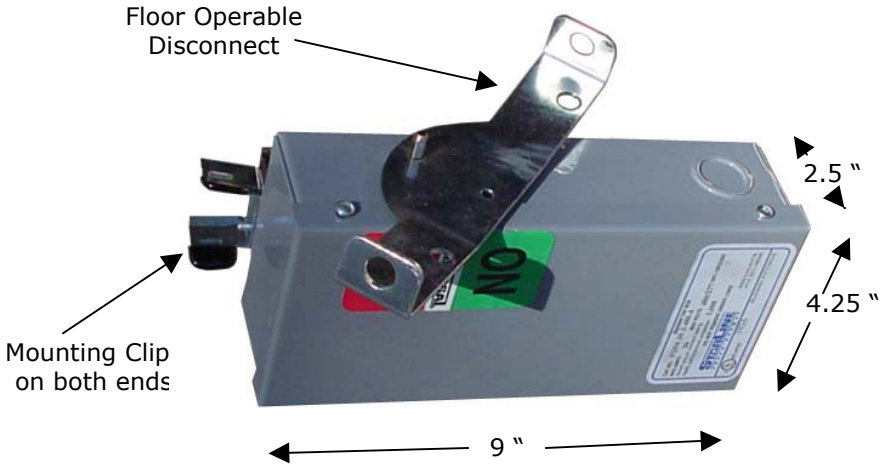
RETURN TO MAIN MENU
Return to PLUG-IN SELECTION
BACK TO SYSTEM VIEW

Compact Series
40, 50, 60 Amp

STARLINE TRACK BUSWAY

FUSED DISCONNECT PLUG-IN

Fused Disconnect
Units provide a 3-pole fuse block for Class CC fuses (ordered separately) with an external floor operable disconnect. The disconnect mechanism is floor operable with chains or a stick. Unit is rated at 30 Amps, 480/277 Volts.



Fused Disconnect installed on STARLINE

c UL us LISTED

Catalog Number Sequence
FD50–(ww)–(p)-480-(P)

- FD50 – Fused Disconnect
- 480 – Amp rating 30
- (p) – Disconnect Poles
- (ww) – Voltage rating
- (P) – System Poles

Catalog Number Selection

Catalog No.	Description	Weight
FD50-30-3-480-4	Fused Disconnect, 30A, 3P, 480V For 4-pole Busway	4.2 lb

RETURN TO MAIN MENU
Back to PLUG-IN SELECTION
Back to SYSTEM VIEW

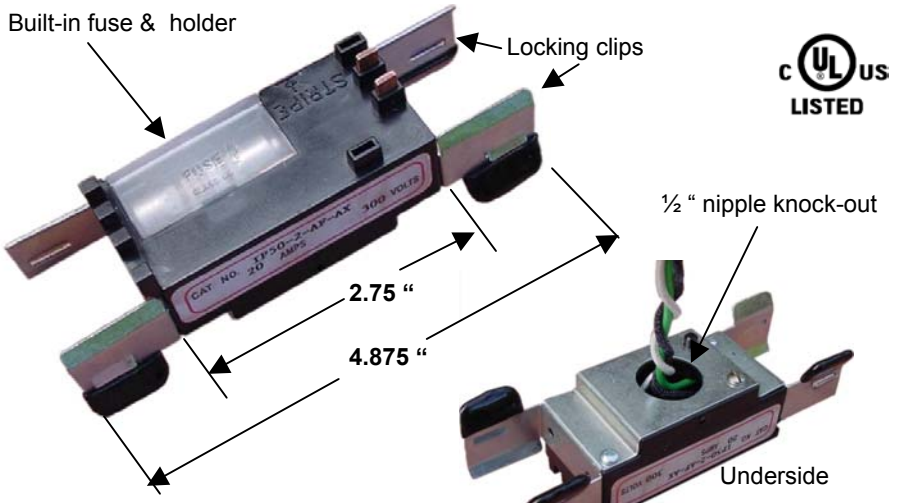
Compact Series
40, 50, 60 Amp

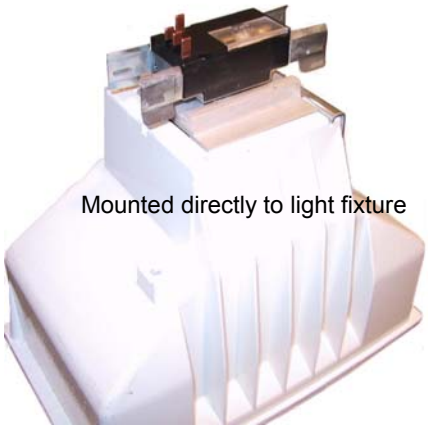
STARLINE TRACK BUSWAY

INTERNAL PLUG-IN

Ideal for applications where the plug head should not be visible such as light fixtures and retail/commercial areas. This Internal Plug "clicks" into the Busway section and provides a mounting plate for light fixture connection. The unit inserts into the Busway continuous slot and snaps into place, making the mechanical, electrical and grounding connections. Units are polarized to inhibit reverse installation.

Internal plugs are available in ratings of 20 and 30 amps, 480/277 volts, fusible or non-fusible. The 20 amp version utilizes high temperature wire for ballast and fixture applications





Catalog Number Sequence

IP50–(XX)- (y)(F)

- (F) → Fuse
- (y) → Phase or Poles
- (XX) → Amp Size
- IP50 → for all 40, 50 & 60C
- Internal Plug

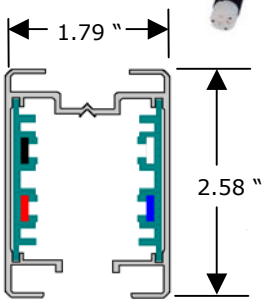
Catalog Number Selection (used for 40, 50 and 60C systems)

Catalog No.	Description	Weight
IP50-20-A	20Amp, non-fusible, 2-pole. A-Phase	0.5 lb
IP50-20-B	20Amp, non-fusible, 2-pole, B-Phase	0.5 lb
IP50-20-C	20Amp, non-fusible, 2-pole, C-Phase	0.5 lb
IP50-20-Y*F	20Amp, with fuse, 2-pole	0.5 lb
IP50-30-A	30Amp, non fusible, 2-pole, A-Phase	0.5 lb
IP50-30-B	30Amp, non fusible, 2-pole, B-Phase	0.5 lb
IP50-30-C	30Amp, non fusible, 2-pole, C-Phase	0.5 lb
IP50-30-Y*F	30Amp, with fuse, 2-pole	0.5 lb
IP50-30-4	30Amp, non-fusible, 4-pole	0.5 lb

Y*=A, B or C Phase

RETURN TO MAIN MENU | Return to PLUG-IN SELECTION | BACK TO SYSTEM VIEW

60 Amp System to 600 Volts (B60)



End Cap

Coupler

Support Hardware

Connector

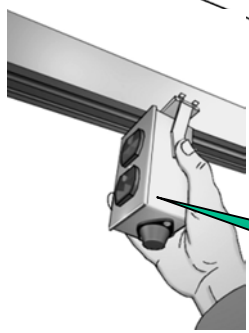
Tee Connector

Power Feed

Coupler

Housing Section

Elbow Connector



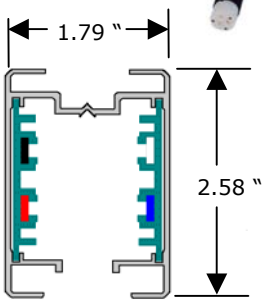
Plug-In Units

Accessories-Closure Strip, Wt Hook,etc

RETURN TO MAIN MENU

Return To SYSTEM SELECTION

Compact B100 Amp System to 300 Volts



End Cap

Coupler

Support Hardware

In-Line Connector

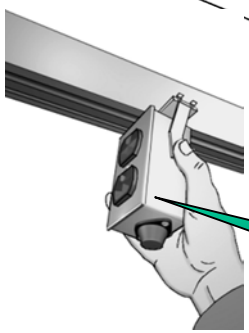
Tee Connector

Power Feed

Coupler

Housing Section

Elbow Connector



Accessories-Closure Strip, Weight Hook

Plug-In Units

RETURN TO MAIN MENU

Back to SYSTEM SELECTION

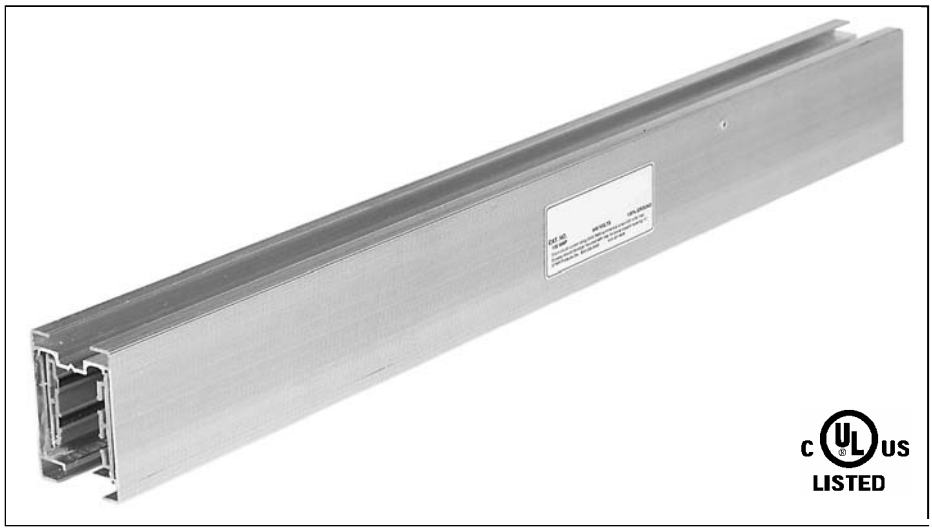
60 Amp

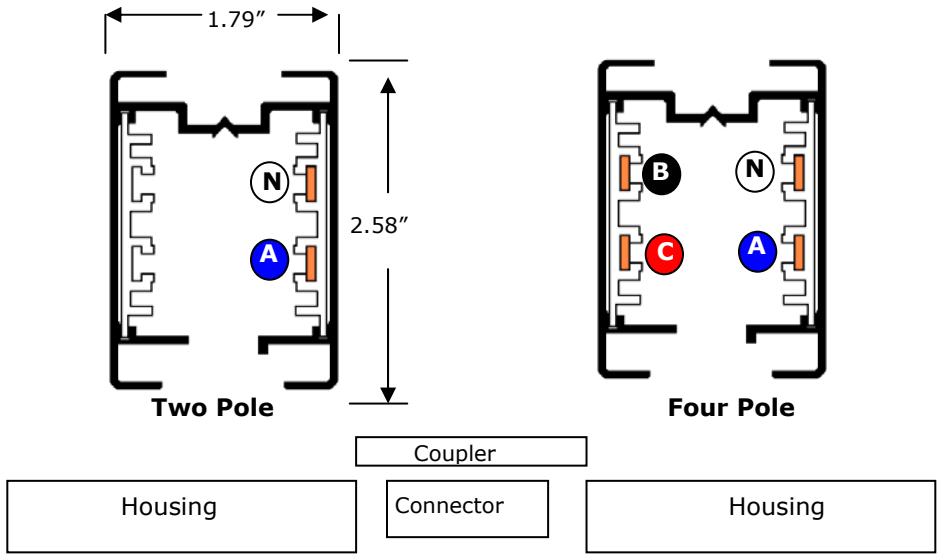
STARLINE TRACK BUSWAY

HOUSING SECTIONS

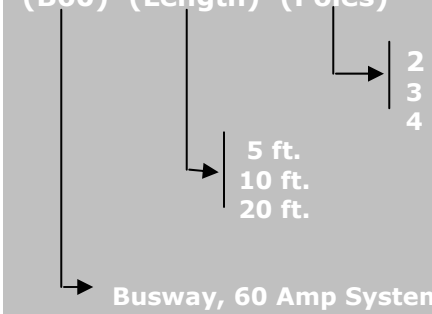
Track Busway housings consist of an extruded aluminum outer shell with PVC insulated copper conductor strips mounted on the two opposite interior side walls. The aluminum extrusion acts as a 100% ground path meeting UL 857 Standard and complies with applicable paragraphs of Section 250 of the NEC. Each housing has an open access slot over its entire length for the insertion of turn-n-lock plug-in units.. Housing configurations include 2, 3 and 4 pole varieties in both 300 and 600 Volt designs. Track Busway housing are connected together using plug-in connectors and plate or wrap around type housing couplers .

MATERIAL: Extruded Aluminum 6005-T5 unpainted
RATINGS: 100% Ground Path
60 Amp, 300 Volt
60 Amp, 600 Volt
LENGTH: 5 Ft, 10 Ft , 20 Ft.
INSULATION: PVC
VOLTAGE DROP: distributed load
Single Phose 40ft (.8PF)
Three Phase 45ft (.8PF)





Catalog Number Sequence
(B60)–(Length)–(Poles)



Catalog Number Selection
For 300 Volt Applications – Shown
For 600 Volt Applications – add "-600" to catalog number

Length	TWO POLE	lb	FOUR POLE	lb
5 ft	B60 – 5 - 2	5	B60 – 5 - 4	6.2
10 ft	B60 –10 - 2	10	B60 –10 – 4	12.5
20 ft	B60 – 20 - 2	20	B60 – 20 - 4	25

NOTES: Busway sections CANNOT be cut on site. Although Busway sections come in standard lengths of 5, 10 & 20 feet, factory cut lengths between 1 and 19 feet can be ordered. Consult factory for price and delivery.

RETURN TO MAIN MENU
BACK TO SYSTEM VIEW

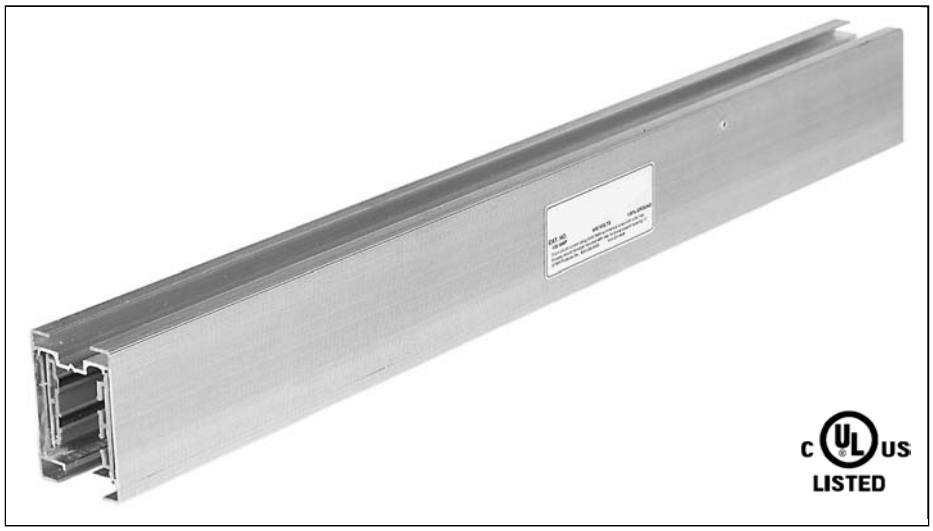
Compact 100 Amp(B100C)

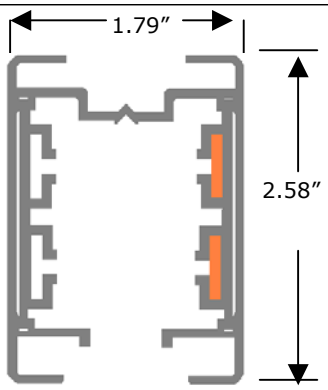
STARLINE TRACK BUSWAY

HOUSING SECTIONS

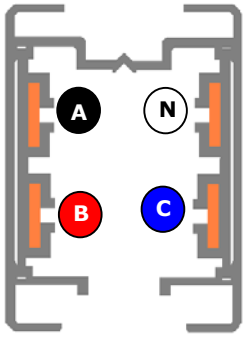
Track Busway housings consist of an extruded aluminum outer shell with PVC insulated copper conductor strips mounted on the two opposite interior side walls. The aluminum extrusion acts as a 100% ground path meeting UL 857 Standard and complies with applicable paragraphs of Section 250 of the NEC. Each housing has an open access slot over its entire length for the insertion of turn-n-lock plug-in units.. Housing configurations include 2 and 4 pole varieties to 600 Volt designs. Track Busway housing are connected together using plug-in connectors and plate or wrap around type housing couplers .

MATERIAL: Extruded Aluminum 6005-T5 unpainted
RATINGS: 100% Ground Path 100 Amp, 600 Volt
LENGTH: 5 Ft, 10 Ft , 20 Ft.
INSULATION: PVC
VOLTAGE DROP: distributed load
Single Phose 40ft (.8PF)
Three Phase 45ft (.8PF)





Two Pole

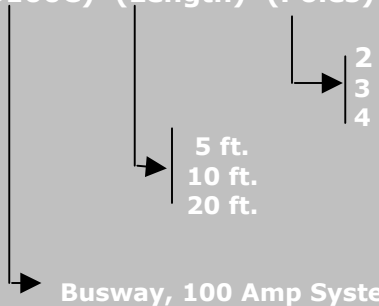


Four Pole

Coupler

Housing | Connector | Housing

Catalog Number Sequence
(B100C)–(Length)–(Poles)



.ength	TWO POLE	lb	FOUR POLE	lb
5 ft	B100C – 5 - 2	6.4	B100C – 5 - 3	8
10 ft	B100C –10 - 2	13	B100C –10 – 4	16
20 ft	B100C – 20 - 2	26	B100C – 20 - 4	32

NOTES: Busway sections CANNOT be cut on site. Although Busway sections come in standard lengths of 5, 10 & 20 feet, factory cut lengths between 1 and 19 feet can be ordered. Consult factory for price and delivery.

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BACK TO SYSTEM VIEW

60 Amp

STARLINE TRACK BUSWAY

POWER FEED UNITS

For connecting to END of Busway

For connecting to TOP of Busway

For connecting BELOW Busway

For CONCEALING in Busway

RETURN TO MAIN MENU

BACK TO SYSTEM VIEW

60 Amp

STARLINE TRACK BUSWAY

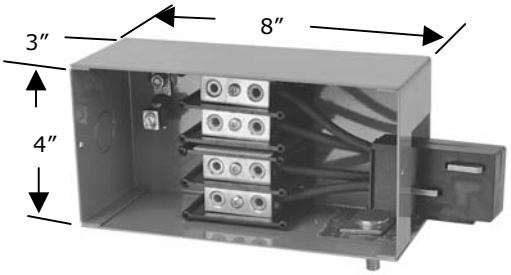
POWER END FEED UNITS

Supplying power to END of Busway

A. With Built-In Connector
Consists of steel junction box with removable side, a terminal block for field connections and an in-line connector already terminated to one side of terminal block. The unit is inserted into the Busway and held in position via bolted connection to Busway.

B. With Separate Connector
Same as A, except box is connected to six-inch section of Busway. An in-line, tee or elbow connector and housing coupler (supplied separately) is used to connect ton to the Busway run.

C. With Built-In Adapter
Provides the components needed to connect a trunk busway tap box to the STARLINE End Feed assembly. Comes with 4 feet of flexible conduit and cable.



A. With Built-In Connector - **EPF** Series

B. With Separate Connector - **EF** Series

C. With Built-In Adapter - **PFA** Series

c UL us LISTED

Catalog Number Sequence
(XXX)60-(P)

- (P) → Number of Poles 2, 3 or 4
- (XXX) → System Amperage
- 60 → Series Type

Catalog Number Selection

Catalog No.	Illustration	Weight
EPF60-2	A with 2 pole	3.3 lb
EPF60-3	A with 3 pole	3.3 lb
EPF60-4	A with 4 pole	3.5 lb
EF60-2	B with 2 pole	3.3 lb
EF60-3	B with 3 pole	3.3 lb
EF60-4	B with 4 pole	3.5 lb
PFA60-4	C with 4 pole	4.5 lb

RETURN TO MAIN MENU | Back to Power Feed Selection | BACK TO SYSTEM VIEW

100 Amp Compact

STARLINE TRACK BUSWAY

POWER FEED UNITS

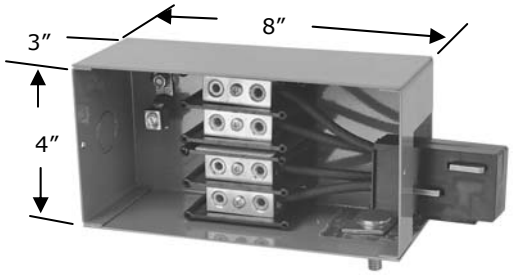
Supplying power to END of Busway

A. With Built-In Connector

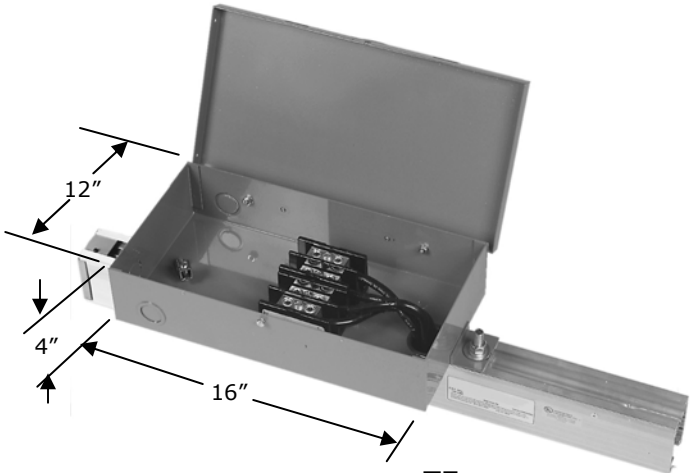
Consists of steel junction box with removable side, a terminal block for field connections and an in-line connector already terminated to one side of terminal block. The unit is inserted into the Busway and held in position via bolted connection to Busway.

B. Top END Feed

Box is connected to top end section of Busway. An in-line, tee or elbow connector and housing coupler (supplied separately) is used to connect ton the Busway run.



A. With Built-In Connector - **EPF** Series



B. for Top End Feed - **TF** Series

c UL us LISTED

Catalog Number Sequence

(XXX)100C-(P)

- **Number of Poles** 2, 3 or 4
- **System Amperage**
- **Series Type**

Catalog Number Selection

Catalog No.	Illustration	Weight
EPF100C-2	A with 2 pole	3.3 lb
EPF100C-3	A with 3 pole	3.3 lb
EPF100C-4	A with 4 pole	3.5 lb
TF100C-2	B with 2 pole	3.3 lb
TF100C-3	B with 3 pole	3.3 lb
TF100C-4	B with 4 pole	3.5 lb

RETURN TO MAIN MENU

BACK TO SYSTEM VIEW

60 Amp

STARLINE TRACK BUSWAY

POWER TOP FEED UNITS

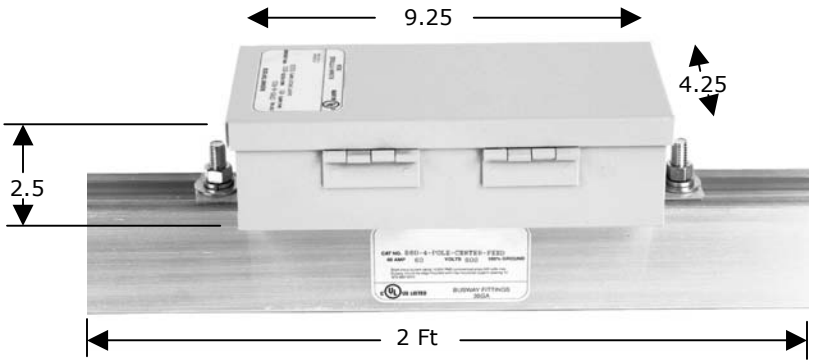
Supplying power to TOP of Busway

D. Top CENTER Feed

Used for supplying power anywhere along the top of a Busway run. Consists of a two-foot section of Busway, with a junction box with 60A rated terminal bock. For concealed applications, can be supplied without junction box in any length to 20 feet. A 1 inch conduit access hole is cut in top of 2 ft Busway for field connection of supply wires to connection lugs inside of Busway section. Two In-Line connectors and housing couplers (supplied separately) are used to connect to adjacent Busway sections.

E. Top END Feed

Same as D, except box is connected to top end section of Busway. An in-line, tee or elbow connector and housing coupler (supplied separately) is used to connect to the Busway run.



D. for Top Center Feed - **CF** Series

E. for Top End Feed - **TF** Series

c UL us LISTED

Catalog Number Sequence

(XXX)60-(P)PW

- **Without Junction Box**
- **Number of Poles 2, 3 or 4**
- **System Amperage**
- **Series Type**

Catalog Number Selection

Catalog No.	Illustration	Weight
CF60-2	D. with 2-Pole	4.8 lb
CF60-3	D. with 3-Pole	5 lb
CF60-4	D. with 4-Pole	5 lb
TF60-2	E. with 2-Pole	4.8 lb
TF60-3	E. with 3-Pole	5 lb
TF60-4	E. with 4-Pole	5 lb
B60-X-2PW	D. without box, 2- pole	2 lb plus Busway
B60-X-3PW	D. without box, 3- pole	2 lb plus Busway
B60-X-4PW	D. without box, 4- pole	2 lb plus Busway

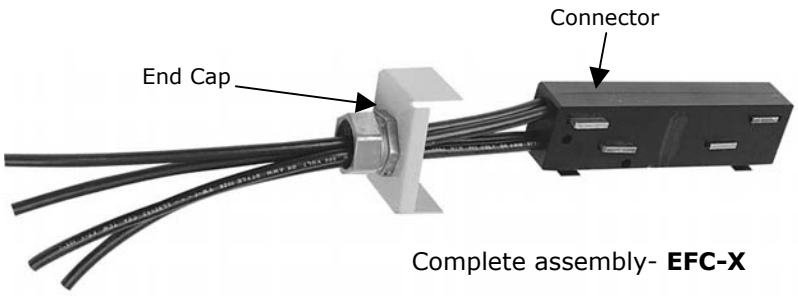
"X" = Length of Busway

RETURN TO MAIN MENU | Back to Power Feed Selection | BACK TO SYSTEM VIEW

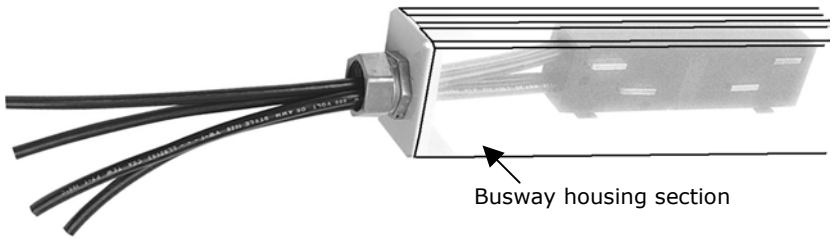
STARLINE TRACK BUSWAY

CONCEALED POWER FEED

Supplying power to END of Busway
With Built-In Connector
This design of Power Feed is used primarily in application where aesthetic appearance is important such as retail. Wire leads are preassembled to the connector and eliminate the junction box on the Busway. Twenty-four inch wire length is standard, but any length can be supplied.



Complete assembly- **EFC-X**



c UL us LISTED

Catalog Number Sequence
EFC60-(P)

- **Number of Poles** 2, 3 or 4
- **System Amperage**
- **End Feed Concealed**

Catalog Number Selection

Catalog No.	Illustration	Weight
EFC60-2	2 pole	2 lb
EFC60-3	3 pole	2 lb
EFC60-4	4 pole	2 lb

RETURN TO MAIN MENU | Back to Power Feed Selection | BACK TO SYSTEM VIEW

60 Amp

STARLINE TRACK BUSWAY

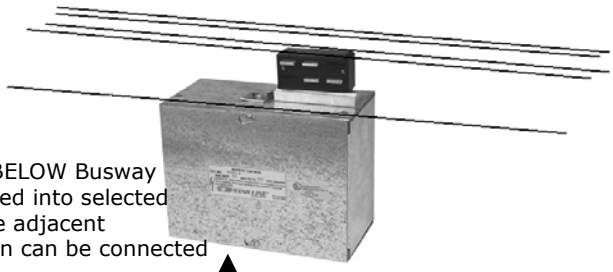
UNIVERSAL POWER FEED

Supplying power to BOTTOM of Busway

Universal Power Feed

Universal Power Feed is designed to be installed anywhere along the full-access opening of a Busway run. Insert the Power Feed connector into the Busway run where desired and secure with hanger bolt (supplied). The Universal Power Feed unit must be completely installed in the selected Busway housing before the adjacent housing section can be installed. A terminal block is provided in the box for field terminations. Power supply cable is fed in from under the unit.

Universal Power Feed - **PF** Series



For installing BELOW Busway
Must be installed into selected
Housing before adjacent
Housing section can be connected

Power supply cable from bottom

c UL us LISTED

Catalog Number Sequence

PF60- (X)

- **Number of Poles** 2, 3 or 4
- **System Amperage**
- **Series Type**

Catalog Number Selection

Catalog No.		Weight
PF60-2	2-Pole	4.5 lb
PF60-3	3-Pole	4.7 lb
PF60-4	4-Pole	4.8 lb

RETURN TO MAIN MENU | Back to Power Feed Selection | BACK TO SYSTEM VIEW

60 & 100 Amp Compact

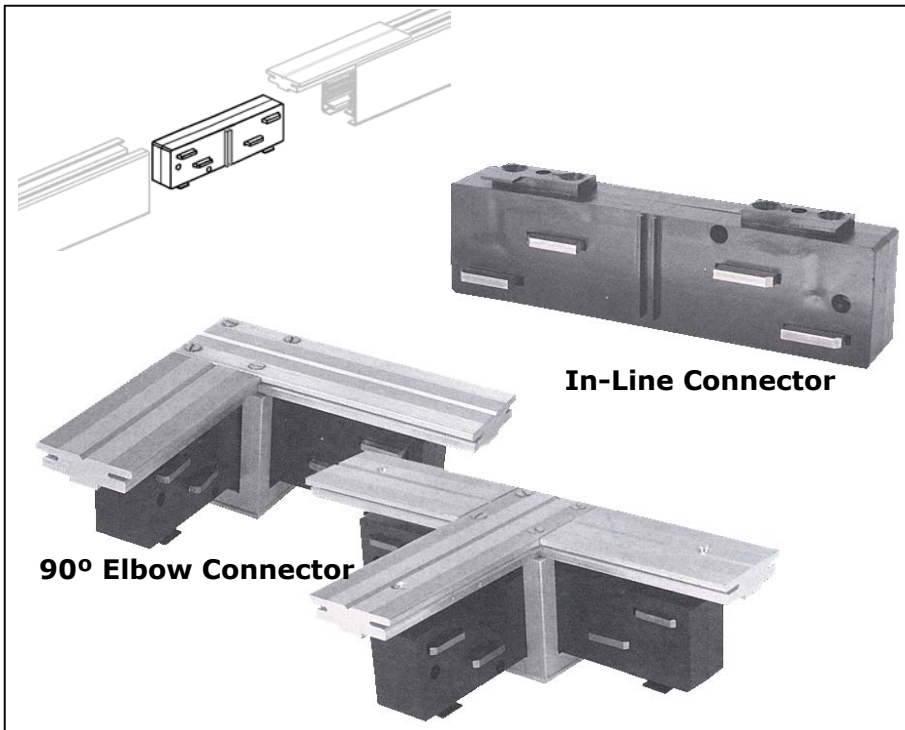
STARLINE TRACK BUSWAY

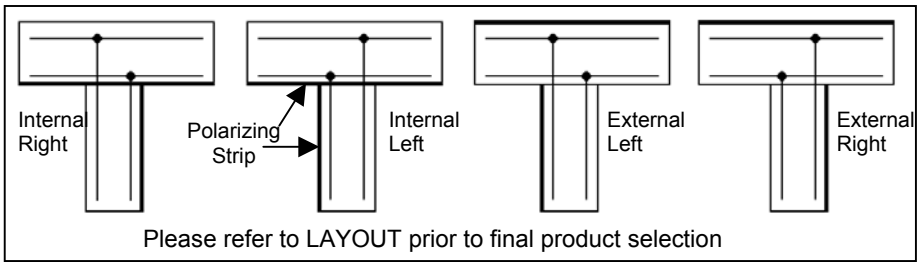
CONNECTORS

In-Line Connector
Sections of 60 or 100 Amp Compact Busway are joined electrically by means of an in-line connector. The connector is installed by inserting in each end of the housing sections to be joined. Flat head Allen compression screws are tightened to make a reliable contact to bus connection. All in-line connectors are polarized to prevent phase mismatch.

Elbow Connector
Factory pre-assembled, elbow connectors are used for making a 90-degree turn for 60/100 Amp Compact systems. Refer LAYOUT for polarization issues before making final selection.

Tee Connector FOR 60 AMP
Similar to Elbow Connectors, Tee Connectors are used for connecting branch housing sections at 90 degrees to the main run for 60 AMP SYSTEMS ONLY. Refer LAYOUT for polarization issues before making final selection.





Please refer to LAYOUT prior to final product selection

Catalog Number Sequence
(XX)–(P)–(Polarize)

- (Polarize): IH= Internal, EH= External, IR= Internal Right, IL= Internal Left, ER= External Right, EL= External Left
- (P): Number of System Poles
- (XX): BC= Busway Connector, EL = Elbow, BT = Busway Tee

Catalog Number Selection

Catalog No.	Connector Type	System	Weight
BC-2	In-Line, 2 Pole	60 or 100C	0.3 lb
BC-3	In-Line, 3 Pole	60 or 100C	0.3 lb
BC-4	In-Line, 4 Pole	60 or 100C	0.4 lb
EL60-2-(IH or EH)	Elbow, 2 Pole	60 ONLY	0.5 lb
EL60-3-(IH or EH)	Elbow, 3 Pole	60 ONLY	0.5 lb
EL60-4-(IH or EH)	Elbow, 4 Pole	60 ONLY	0.5 lb
EL100C-4-(IH or EH)	Elbow, 4 Pole	100C	0.5 lb
BT60-4IR	Tee, 4 Pole, Internal Right	60 ONLY	1.0 lb
BT60-4IL	Tee, 4 Pole, Internal Left	60 ONLY	1.0lb
BT60-4ER	Tee, 4 Pole, External Right	60 ONLY	1.0lb
BT60-4EL	Tee, 4 Pole, External Left	60 ONLY	1.0lb

RETURN TO MAIN MENU

BACK TO SYSTEM VIEW

60 & 100 Amp Compact

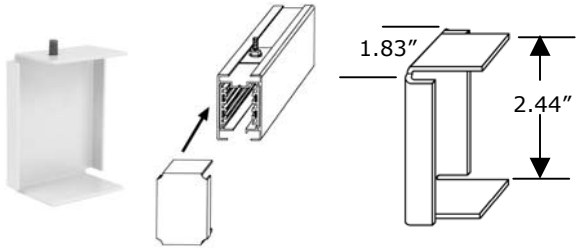
STARLINE TRACK BUSWAY

CONNECTION ACCESSORIES

END CAP
For insulating female end of Busway.

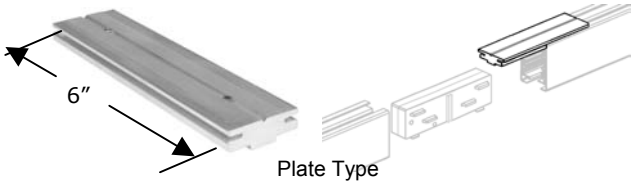
PART NUMBER
EC60

WEIGHT
0.2 lb



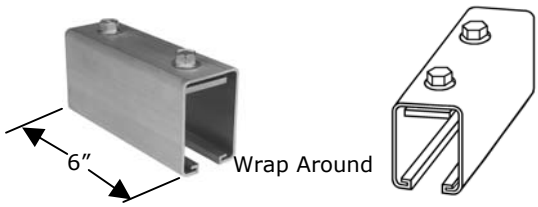
COUPLERS
Plate Type
For concealed connecting Busway sections. One required.

PART NUMBER
HC-2
WEIGHT
0.8 lb



Wrap Around Type
For connecting Busway sections on the outside of the Busway. One required.

PART NUMBER
HC-1
WEIGHT
0.4 lb



CLOSURE STRIP
Made of white, rigid PVC, the closure strip is used to close the continuous access slot of the Busway. It may be used for aesthetic purposes, for keeping dust and dirt from entering the Busway or as an added safety measure. It is easily cut to length in the field to be installed around plug-in units.

PART NUMBER
CS60
WEIGHT

RETURN TO MAIN MENU

c UL us LISTED

BACK TO SYSTEM VIEW

For Compact Series 40, 50, 60 Amp & Standard B60 & B100C Systems

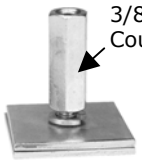
STARLINE TRACK BUSWAY

c UL us LISTED

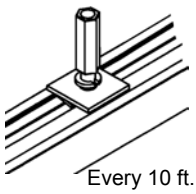
SUPPORT HARDWARE

Threaded Rod
For mounting to 3/8-16 threaded rod. Can be inserted anywhere along full access top slot of Busway. Typical hanger support spacing every 10 ft maximum.

PART NUMBER
RHB-3
WEIGHT
0.3 lb

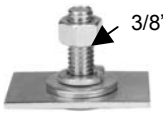


RHB-3 Threaded Rod Hanger

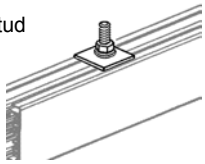

Every 10 ft.

Standard
For mounting to strut or other flat surfaces. Twist-in design allows inserting anywhere along top full access slot.

PART NUMBER
THB-3 3/8"
THB-1/4 ¼"
WEIGHT
0.2 lb

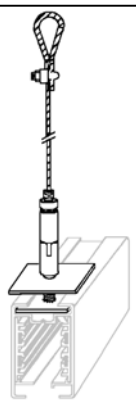


THB-3 Standard Hanger



Cable
For mounting to 1/16' or 3/32" aircraft cable with easy grip clamp assembly. Cable is not included.

PART NUMBER
ACH-1 1/16" cable
ACH-2 2/32" Cable
WEIGHT
0.2 lb


ACH-(X)
Cable Suspension Assembly

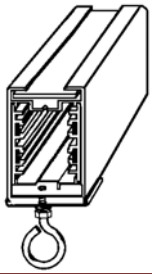
T-Bar Suspended Ceiling
For mounting to inverted T-bar. Clip locks onto T-bar and Busway connected to stud on clip.

PART NUMBER
THB-4
WEIGHT
0.1 lb

Weight Hook
Can be used as a hanger to suspend Busway from chains or cables. Can also be used to hang loads up to 50 lbs under the Busway, such as light fixtures, tools and balancers

PART NUMBER
WHR-1

WEIGHT
0.2 lb.



RETURN TO MAIN MENU

BACK TO SYSTEM VIEW

60 or 100Amp Compact

STARLINE TRACK BUSWAY

PLUG-IN SELECTION

Outlet or Junction Boxes

Fused Duplex Recptacles

Fully Assembled Drop Cords

Internal Plug (for lighting, etc)

Circuit Breakers

Fuse Blocks

Fused Disconnects

RETURN TO MAIN MENU

BACK TO SYSTEM VIEW

60 & 100 Amp Compact

STARLINE TRACK BUSWAY

OUTLET PLUG-IN UNITS

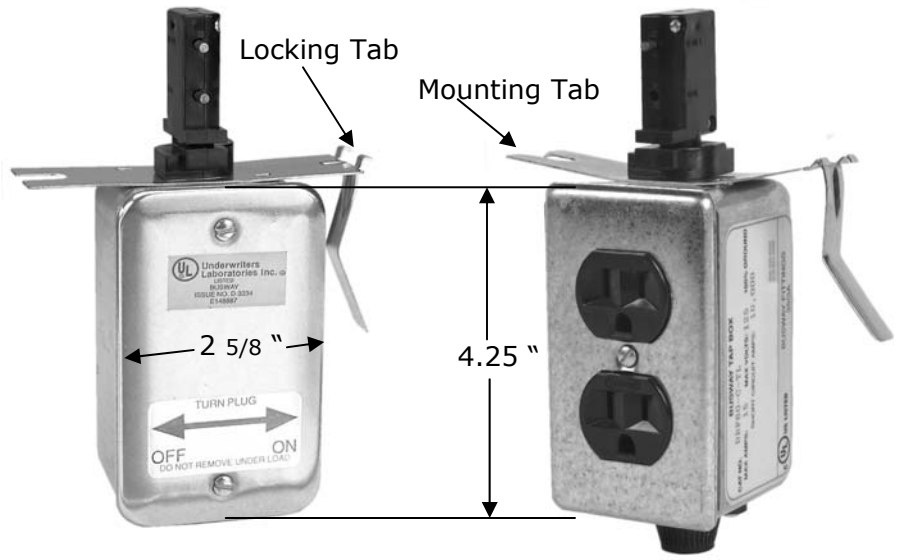
Outlet Plug-In units are used to tap off power from the Busway. All plug-in units are equipped with a special plug head called a "Starjack" which inserts into the Busway continuous slot and turns 90 degrees to make the spring-loaded connection. The installer simply squeezes the locking tab, inserts the unit into the Busway, turns 90 degrees, and releases the locking tab. Both the locking and the bolt-on mounting tab provide ground connection for the box and load. All plug-in units are polarized to inhibit reverse installation.

A. Junction Box

Standard unit consists of J-box with Starjack, cover, ground lug and wire nuts. Optional fuse holders available.

B. Outlet Box

DFR series consists of J-box with Starjack, NEMA 5-15 or 5-30 duplex, fuse and fuse holder. Other NEMA configurations ordered as OB units noted below.



A. Junction Box
OB Series

B. Outlet Box
DRF Series

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Catalog Number Sequence

(XX)60 – (A) - (XX) - (P)

- **Phase (A,B,C)**
- **No. of Poles**
- **For DRF= Outlet Amps 15 or 20**
  For OB unit = NEMA All with fuses
- **System Size**
- **DRF =Duplex Receptacle with Fuse OR OB = for all other NEMA devices**

Catalog Number Selection (DRF and OB)

Catalog No.	Description	Weight
Outlet Box		
DRF60-(A,B,C)-15-4	Duplex Outlet NEMA 5-15, 300Volt Max	1.4lb
DRF60-(A,B,C)-20-4	Duplex Outlet NEMA 5-20, 300Volt Max	1.4lb
OB60-L515-4	Outlet box with L5-15 Duplex/w fuse	1.4lb
OB60-L520R-4	Outlet box with L5-20 Recpt/w fuse	1.4lb
OB60-L615R-4	Outlet box with L6-15 Recpt/w fuse	1.4lb
OB60-L620R-4	Outlet box with L6-20 Recpt/w fuse	1.4lb
OB60-L630R-4	Outlet box with L6-30 Recpt/w fuse	1.4lb
(NOTE:"R" denotes single receptacle)		
Junction Box		
OB60-(15 or 30)-2	Outlet box, 15 or 30 Amp, 2-pole	1.1lb
OB60-(15 or 30)-3	Outlet box, 15 or 30 Amp, 3-pole	1.2lb
OB60-(15 or 30)-4	Outlet box, 15 or 30 Amp, 4-pole	1.3lb
(add –1F, -2F, -3F for 1,2 or 3 fuses)		

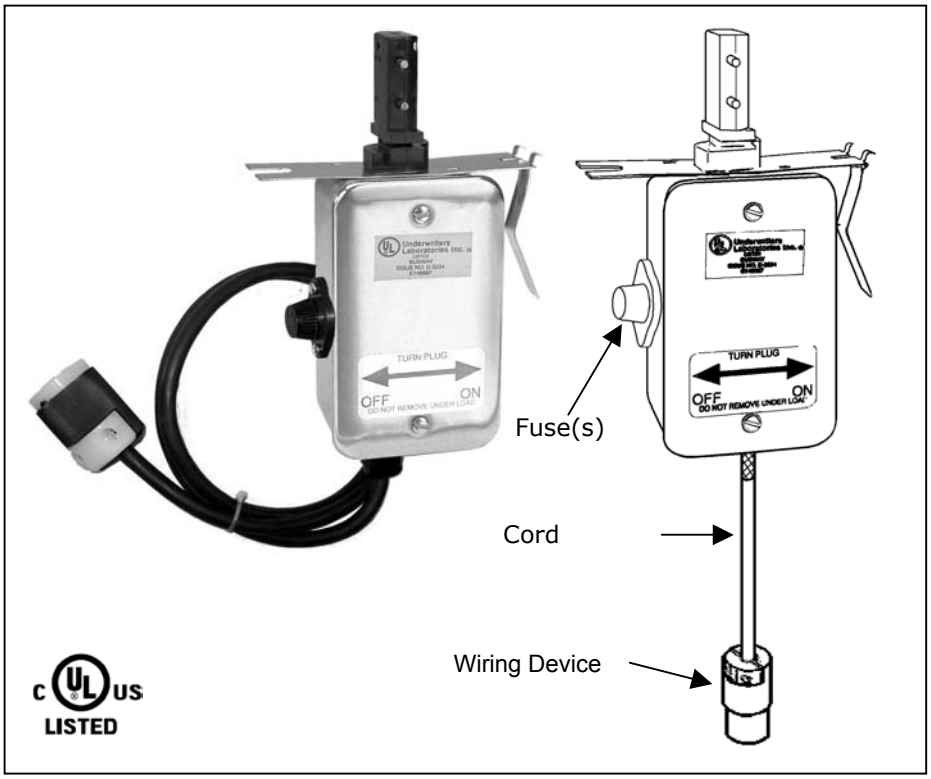
RETURN TO MAIN MENU
Back to Plug-In Selection
BACK TO SYSTEM VIEW

60 & 100 Amp Compact

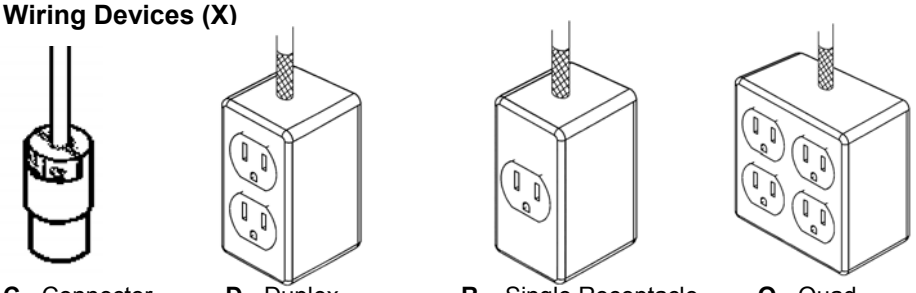
STARLINE TRACK BUSWAY

DROP CORD PLUG-IN

Drop Cord Assembly
Shipped assembled complete from the factory based on part number selection including cord, fuses, and wiring device. Drop Cord assemblies with connector type (C) wiring device include a wire mesh cord grip at outlet of plug-in box. All other assemblies include wire mesh cord grips at both end of cord. SJO cord is used in all assemblies. Other NEMA configurations available.



Wiring Devices (X)



C - Connector **D** - Duplex **R** – Single Receptacle **Q** - Quad

Catalog Number Sequence
DC60-(L)–(NEMA)(X) –(Y)

- (Y) Poles
- (X) Wiring Device
  - C – Connector
  - D – Duplex
  - R – Single Receptacle
  - Q- Quad
- (NEMA) NEMA Configuration
- (L) Cord Length
- System Size
- Drop Cord

Catalog Number Examples

Catalog No.	Description	Weight
DC60-10-520D-4	10 ft Drop Cord with NEMA 5-20 Duplex on end, for 4-pole system	
DC60-15-L520C-2	15ft Drop Cord with NEMA L5-20 (locking type) Connector on end for 2-pole system	
DC60-8-L630R-4	8ft Drop Cord with NEMA L6-30 (locking type) single Receptacle (J-Box) on end for 4-pole system	

RETURN TO MAIN MENU | Back to Plug-In Selection | BACK TO SYSTEM VIEW

60 Amp

STARLINE TRACK BUSWAY

INTERNAL PLUG-IN UNITS

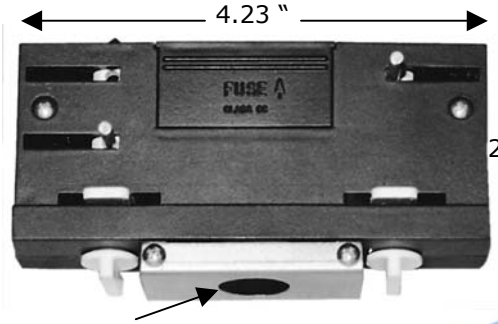
Ideal for applications where the plug head should not be visible such as light fixtures and retail/commercial areas. The unit inserts anywhere along the continuous slot in the STARLINE Track Busway and is energized by turning the two circuit selectors 90 degrees. A mounting plate with a 1/4in. conduit size opening is used for fixture connection. Small unit is rated 13A (for 16AWG wire), 300V max, single phase, with or without optional fuse feature (Class CC fuse not included) and wire nuts. For ballast or fixture applications, 200ºC high temperature wire is available.

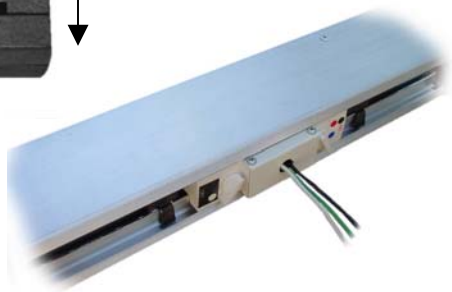
Internal plugs are also available in ratings of 25A, 300 volt, fusible or non-fusible. The 20 amp version utilizes high temperature wire for ballast and fixture applications.

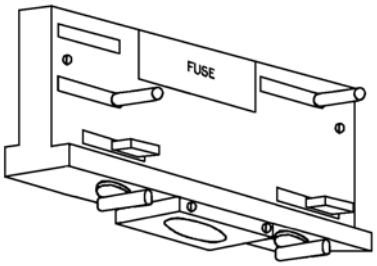
Unit can also be supplied with a 3 meter SJO cord attached, and no mini box rated at 15A (14/3 SJO) or 20A (12/3 SJO). Units are available with basic cord grip or wire mesh cord grip.

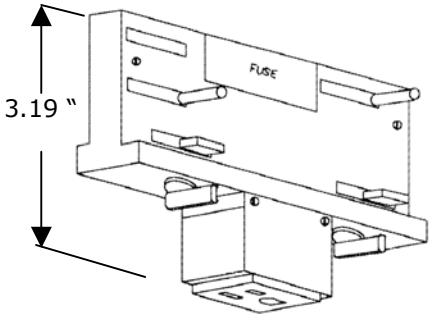
Light Fixtures

Consult factory for available light fixtures with Internal Plug-In equipped.

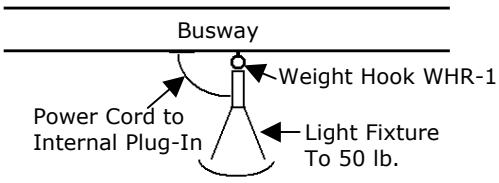








With Optional 15A Receptacle "R"



Common Use for Internal Plug-In

c UL us LISTED

Catalog Number Sequence

IP60–(X)

- unfused phase
- Internal Plug-in for B60

Catalog Number Selection

Catalog No.	Description	Weight
IP60-A*	Unfused, Blue phase	0.5 lb
IP60-B*	Unfused, Blackphase	0.5 lb
IP60-C*	Unfused, Red phase	0.5 lb
IP60-S*	Unfused, selectable to blue or red phase	0.5 lb

* Add "F" for fusible option
"H" for strain relief in mounting plate
"MB" for 25A with mini box
"C15" for 15A cord, 3M
"C20" for 20A cord, 3M
"L10" for high temperature fixture wire
"R" for built-in receptacle

RETURN TO MAIN MENU | Back to Plug-In Selection | BACK TO SYSTEM VIEW

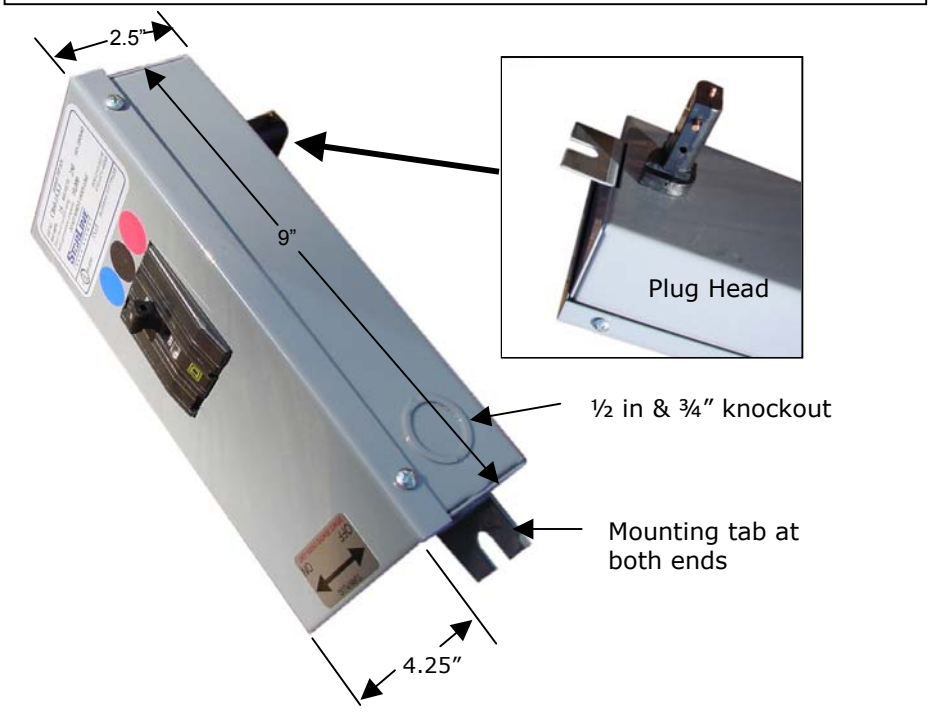
60 & 100 Amp Compact

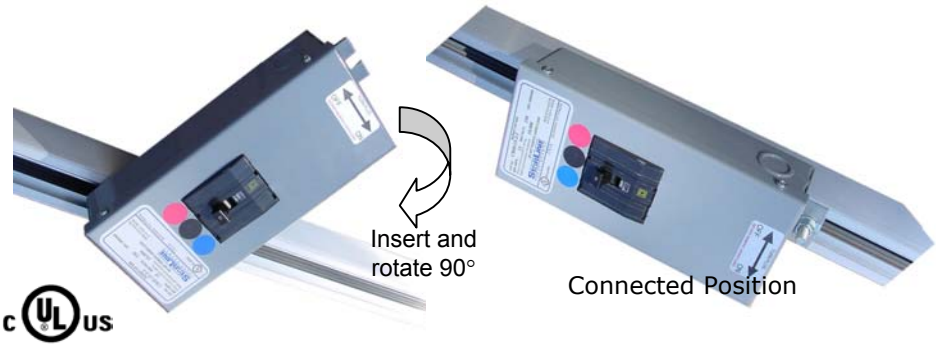
STARLINE TRACK BUSWAY

CIRCUIT BREAKER PLUG-IN

Circuit Breaker
Consists of a full-size junction box with hinged lid, plug head and an externally operated circuit breaker. Insert the plug head into the Busway and rotate 90 degrees to make electrical connections. The units are normally supplied with breakers installed. Units can be supplied with mounting plate only to allow installation of snap-on breakers in the field. Optional factory-installed receptacles can be added.

Circuit breakers can be 15 to 30 amps, 250 to 480 volt max, and 1,2 or 3 pole units. Units with UL Listed multiple breakers are available. For rating over 30 amps and multiple circuit breakers, consult factory. Units include copper grounding lug in the box that fits up to #6 wire, mounting tabs and mounting hardware to secure unit to Busway. UL Listed





c UL us LISTED

Catalog Number Sequence

CB60–(WW)–(P)-(P)

- (P) Breaker Poles
- (P) System Poles
- (WW) Breaker Rating 15 to 30 Amp
- 60 System Size –60 Amp
- CB Circuit Breaker

Catalog Number Selection

Catalog No.	Description	Weight
CB60-WW-1-3	3 pole system, 1 pole breaker, 250 volt max	3.3 lb
CB60-WW-2-3	3 pole system, 2 pole breaker, 250 volt max	3.7 lb
CB60-WW-3-3	3 pole system, 3 pole breaker, 250 volt max	4.2 lb
CB60-WW-1-4	4 pole system, 1 pole breaker, 250 volt max	3.3 lb
CB60-WW-2-4	4 pole system, 2 pole breaker, 250 volt max	3.7 lb
CB60-WW-3-4	4 pole system, 3 pole breaker, 250 volt max	4.2 lb
CB60-WW-3-3-480	3 pole system, 3 pole breaker, 480 volt max	4.0 lb
CB60-WW-3-4-480	4 pole system, 3 pole breaker, 480 volt max	4.2 lb

RETURN TO MAIN MENU
Back to Plug-In Selection
BACK TO SYSTEM VIEW

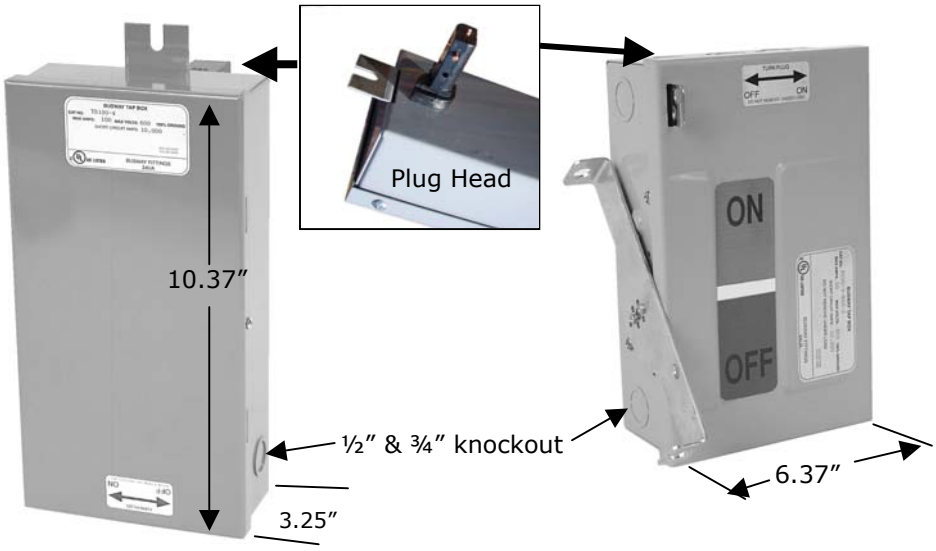
60 & 100 Amp Compact

STARLINE TRACK BUSWAY

FUSED/DISCONNECT PLUG-IN

Fuse Block- FB
Consists of a full-size junction box with hinged lid, an internal fuse block and a plug head. Insert the plug-head into the Busway and rotate 90° to make electrical connection. Phenolic fuse block is 3-pole, Class CC, 600 volt and 30 amp max. Consult factory for fuse ratings over 30 Amp. Fuses are not included but can be order separately. All units include a copper grounding lug, mounting tabs and mounting hardware to secure unit to Busway. UL Listed.

Fused Disconnect - FD
Consists of a full-size junction box with hinged lid, internal fuse block, plug-head and an externally operable disconnect switch. Rocker handle disconnects circuit before box can be opened.
Phenolic fuse block is 3-pole, Class H, 600 volt and 30 Amp max. All units include a copper grounding lug, mounting tabs and mounting hardware to secure unit to Busway. UL Listed.



Fuse Block - **FB**

External Disconnect - **FD**

Insert and rotate 90°

Connected Position

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Catalog Number Sequence
(XX)60–(WW)–(P)–(P)

- (P) System Poles
- (P) Fuse Poles
- (WW) Block Rating 30 Amp Max
- (XX)60 System Size – 60 Amp
- (XX) FB = Fuse Block, FD = Fused Disconnect

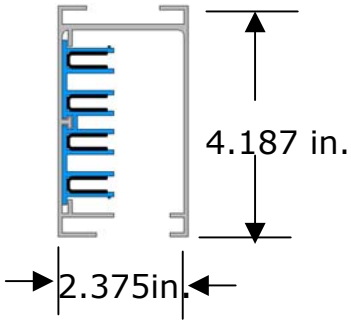
Catalog Number Examples

Catalog No.	Description	Weight
FD60-30-3-250-4	Fused Disconnect unit, 3-pole, 30A, 250V for 4-pole system	5.2 lb
FD60-30-4-250-4	Fused Disconnect unit, 3-pole +4W, 30A, 250V, 4-pole system	5.2 lb

RETURN TO MAIN MENU | Back to Plug-In Selection | BACK TO SYSTEM VIEW

100 Amp System to 600 Volts (B100)

2, 3 or 4 pole with/without 200% neutral and Isolated ground



End Cap

Support Hardware

Tee

End Piece

Power Feed

Installation Tool

Coupler

Housing Section

Elbow

Plug-In Units

Accessories - Closure Strip, Wt Hook, etc

RETURN TO MAIN MENU

Return To SYSTEM SELECTION

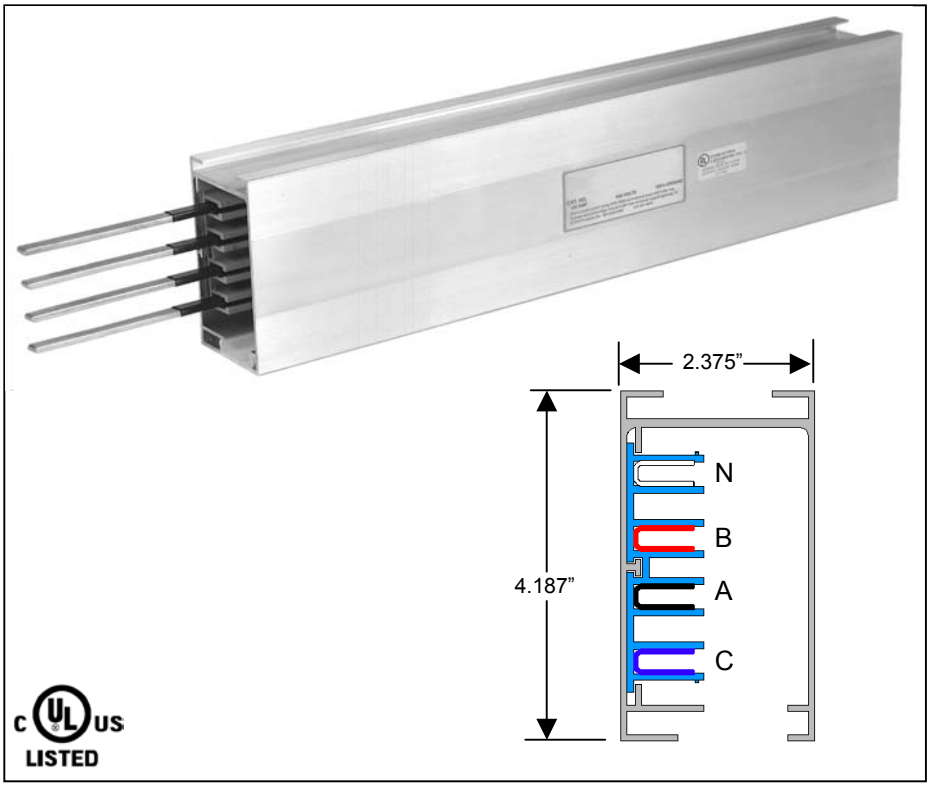
100 Amp

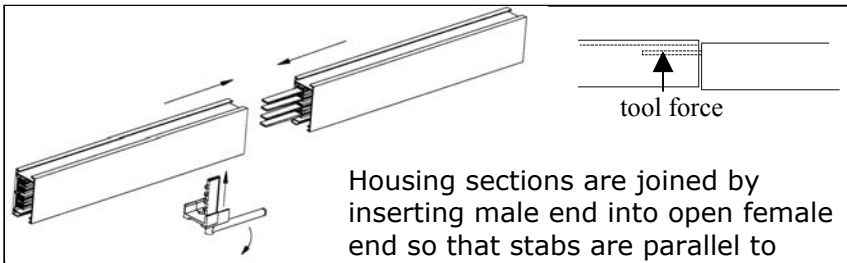
STARLINE TRACK BUSWAY

HOUSING SECTIONS

Track Busway housing section consists of an extruded aluminum shell with channel type solid copper busbars contained in a full length PVC insulator mounted on one side on the interior wall. The aluminum extrusion acts as a 100% ground path meeting UL 857 Standard and complies with applicable paragraphs of Section 250 of the NEC. Each housing has an open access slot over its entire length for the insertion of turn-n-lock plug-in units.. Housing configurations include 2, 3 and 4 pole varieties in both 300 and 600 Volt designs. Each housing section has male stabs protruding at one end which fit into the channels of the adjoining section. An installation tool is used to force the stabs into the busbar channels for a solid "spring-pressure" electrical connection.

MATERIAL: Extruded Aluminum 6005-T5 unpainted
RATINGS: 100% Ground Path
60 Amp, 300 Volt
60 Amp, 600 Volt
LENGTH: 5 Ft, 10 Ft , 20 Ft.
INSULATION: PVC
VOLTAGE DROP: distributed load
Single Phose 40ft (.8PF)
Three Phase 45ft (.8PF)





Housing sections are joined by inserting male end into open female end so that stabs are parallel to female slots. Installation tool is then rotated to force stabs into slots.

Catalog Number Sequence

B100–(X)PG–(L)

- (L) → **Length** 5, 10 or 20 or custom length
- (X) → **No. of Poles**
- B100 → **System size**

Catalog Number Selection

Catalog No.	Description	Length	Weight
B100-3PG-5	100 amp, 3 pole	5 ft	12.5lb
B100-3PG-10	100 amp, 3 pole	10 ft	25 lb
B100-3PG-20	100 amp, 3 pole	20 ft	50 lb
B100-4PG-5	100 amp, 4 pole	5 ft	13 lb
B100-4PG-10	100 amp, 4 pole	10 ft	16 lb
B100-4PG-20	100 amp, 4 pole	20 ft	52 lb

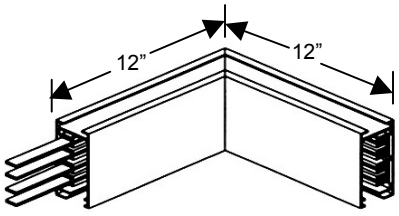
RETURN TO MAIN MENU
BACK TO SYSTEM VIEW

100 Amp

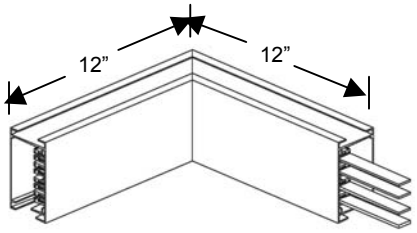
ELBOW SECTIONS

Elbow Section
Elbows are used for making a 90 degree in a Busway run. Horizontal and vertical elbows are available. Specify right or left elbow, up or down according to the orientation of the busbars in the Busway sections to be connected. Refer to Layout B100 for detail. Tee sections are connected to adjacent Busway sections using Installation Tool BIT100. Coupler set BNC-1 (ordered separately) is used to mechanically connect top and bottom of Tee section to adjacent Busway.

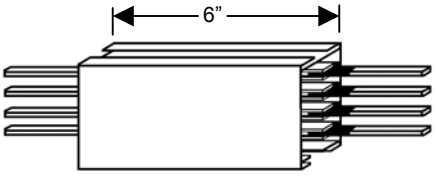
Horizontal Elbow



Right Elbow EL4-R



Left Elbow EL4-L



Male to Male Adapter AD-4

c UL us LISTED

Catalog Number Sequence
EL (P)–(X)

- **Direction** — **Right, Left, Up, Down**
- **Number of System Poles**
- **Elbow**

Catalog Number Selection

Catalog No.	Description	Weight
EL3-L	Elbow, horizontal, 3-pole, left	5.5 lb
EL3-R	Elbow, horizontal, 3-pole, right	5.5 lb
EL4-L	Elbow, horizontal, 4-pole, left	5.5 lb
EL4-R	Elbow, horizontal, 4-pole, right	5.5 lb
EL4-U	Elbow, up, 4-pole	5.5 lb
EL4-D	Elbow, down, 4-pole	5.5 lb
AD-4	Male to Male Adapter, 4-pole	

RETURN TO MAIN MENU

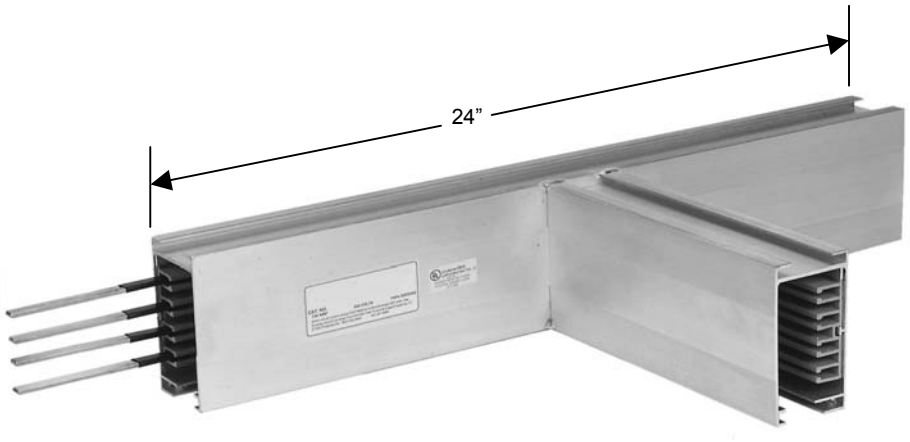
BACK TO SYSTEM VIEW

100 Amp

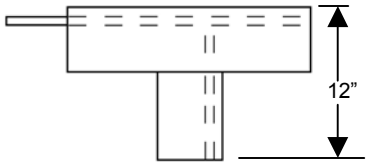
STARLINE TRACK BUSWAY

TEE SECTIONS

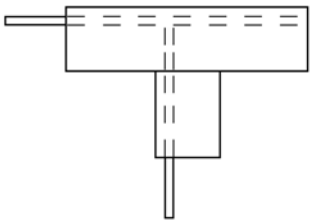
Tee Section
Tee sections are used for creating a 90 degree branch leg in a Busway run. When laying out a system, specify the correct busbar crientation of the tee. Indicate right or left, external or internal busbars. External tees are preferred. Refer to Layout B100 for further detail. Tee sections are connected to adjacent Busway sections using Installation Tool BIT100. Coupler set BNC-1 (ordered separately) is used to mechanically connect top and bottom of Tee section to adjacent Busway.



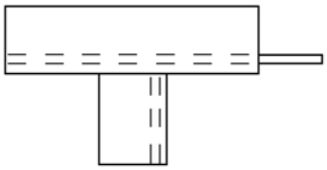
External Right
BT (X)-ER



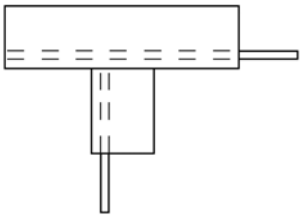
External Left
BT (X)-EL



Internal Right
BT (X)-IR



Internal Left
BT (X)-IL



c UL us LISTED

Catalog Number Sequence
BT (P)–(XX)

- **Tee**
- **Number of System Poles**
- **Direction External or Internal Right or Left**

Catalog Number Selection

Catalog No.	Description	Weight
BT3-ER	Tee, 3-pole, External Right	8. lb
BT3-EL	Tee, 3-pole, External Left	8. lb
BT4-ER	Tee, 4-pole, External Right	8. lb
BT4-EL	Tee, 4-pole, External Left	8. lb
BT4-IR	Tee, 4-pole, Internal Right	8. lb
BT4-IL	Tee, 4-pole, Internal Left	8. lb

RETURN TO MAIN MENU

BACK TO SYSTEM VIEW

100 Amp

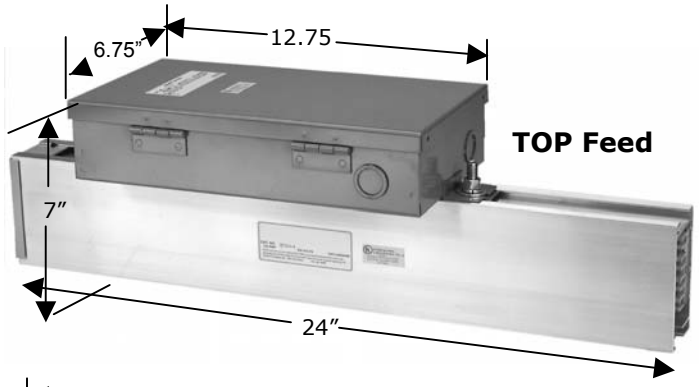
POWER FEED UNITS

STARLINE TRACK BUSWAY

Supplying power to TOP of Busway

TOP Feed

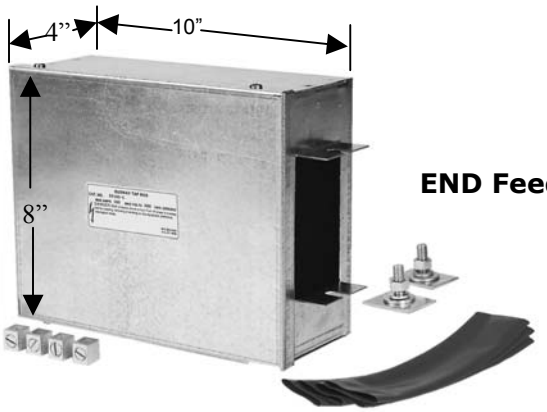
The Top Feed Power unit comes completely pre-wired steel box to the top of a 2-foot section of Busway. A terminal block is located inside the box for field termination of supply power cable up to 2/0. This unit is then connected to the male end of an adjoining Busway section using an Installation Tool and set of Housing Couplers (ordered separately).



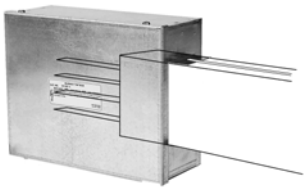
TOP Feed

END Feed

The standard End Feed consists of a steel junction box with removable side, box lugs and shrink tubing. The power feed box slips over the male end of the first Busway section and secured in place with mounting studs(supplied). Power supply cable is then terminated to each of the male Busway stabs using the box lugs.



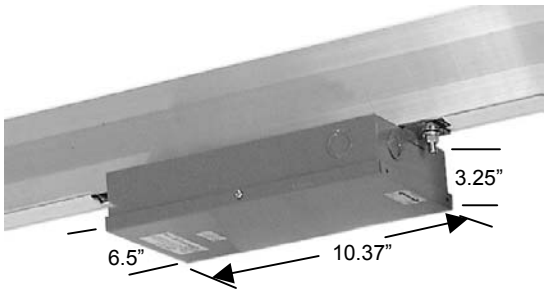
END Feed



BOTTOM Feed

Bottom feed can be made by using a 100Amp Terminal Block plug-in unit inserted and mounted below the Busway.

BOTTOM Feed using Terminal Block



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Catalog Number Sequence

(XX)100–(P)

Number of System Poles

EF= End Feed
TF =Top Feed
PFA=End Feed with 4 ft flex

Catalog Number Selection

Catalog No.	Description	Weight
EF100-3	End Feed, 3-Pole	6 lb
EF100-4	End Feed, 4-Pole	6 lb.
TF100-3	Top Feed, 3-Pole	12.5 lb
TF100-4	Top Feed, 4-Pole	12.5 lb.
PFA100-4	End Feed , 4-pole with 4ft flex For connection to trunk busway	8 lb

RETURN TO MAIN MENU

BACK TO SYSTEM VIEW

100/225Amp

STARLINE TRACK BUSWAY

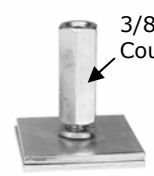
c UL us LISTED

SUPPORT HARDWARE
FOR EITHER SYSTEM

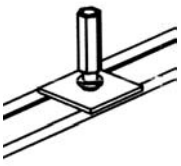
Threaded Rod
For mounting to 3/8-16 threaded rod. Can be inserted anywhere along full access top slot of Busway. Typical hanger support spacing every 10 ft maximum.

PART NUMBER
BRH-1

WEIGHT
0.3 lb



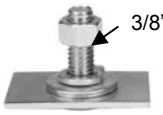
BRH-1 Threaded Rod Hanger


Every 10 ft.

Standard
For mounting to strut or other flat surfaces. Twist-in design allows inserting anywhere along top full access slot.

PART NUMBER
BH-1

WEIGHT
0.2 lb

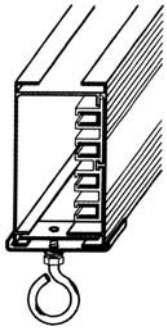


BH-1 Standard Hanger

Weight Hook
Can be used as a hanger to suspend Busway from chains or cables. Can also be used to hang loads up to 100 lbs under the Busway, such as light fixtures, tools and balancers

PART NUMBER
WHR-2

WEIGHT
0.2 lb.



OPTIONAL CLOSURE STRIP
Snaps into bottom access slot of B100 or B225 housing sections. Normally shipped in 20 ft lengths and can be field cut to fit exact desired length.

PART NUMBER
CS-1 for both B100 and B225 Systems

RETURN TO MAIN MENU

Back to B225 SYSTEM VIEW

Back TO B100 SYSTEM VIEW

100/225Amp

STARLINE TRACK BUSWAY

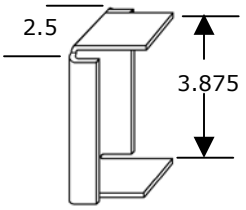
c UL us LISTED

CONNECTION ACCESSORIES

END CAP
For insulating female end of B100 or B225 Busway. End Piece (EP) is used to cover male end.

PART NUMBER
EC-1

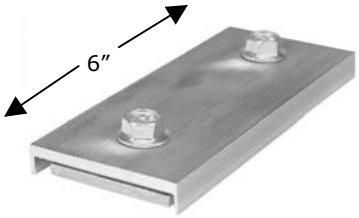
WEIGHT
0.2 lb

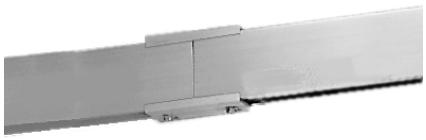


COUPLERS
For connecting adjacent Busway sections, top and bottom. One pair required.

PART NUMBER
For B100 Busway
BHC-1
WEIGHT 0.8 lb

PART NUMBER
For B225, B100N or NG Busway
BHC-2
WEIGHT 0.8 lb

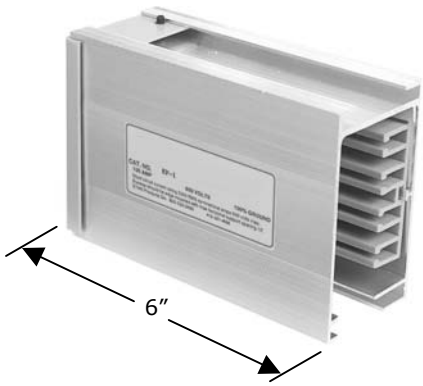




END PIECE
The end piece is a 6 in. section of Busway housing and insulator and end cap. It is used to cover the protruding copper busbar connector blades at the male end of a Busway run. End Cap (EC) is used to cover female end.

PART NUMBER
For B100 Busway
EP-1
WEIGHT 1 lb

PART NUMBER
For B225 Busway
EP-2
WEIGHT 0.8 lb



RETURN TO MAIN MENU

Back to B225 System View

Back to B100 System

100 Amp

STARLINE TRACK BUSWAY

PLUG-IN SELECTION

Outlet or Junction Boxes

Fused Duplex Receptacles

Pre-Assembled Drop Cords

Circuit Breakers

Fuse Blocks

Fused Disconnects

Terminal Blocks

Mini-Panel

RETURN TO MAIN MENU

Back to SYSTEM VIEW

100 Amp

OUTLET PLUG-IN UNITS

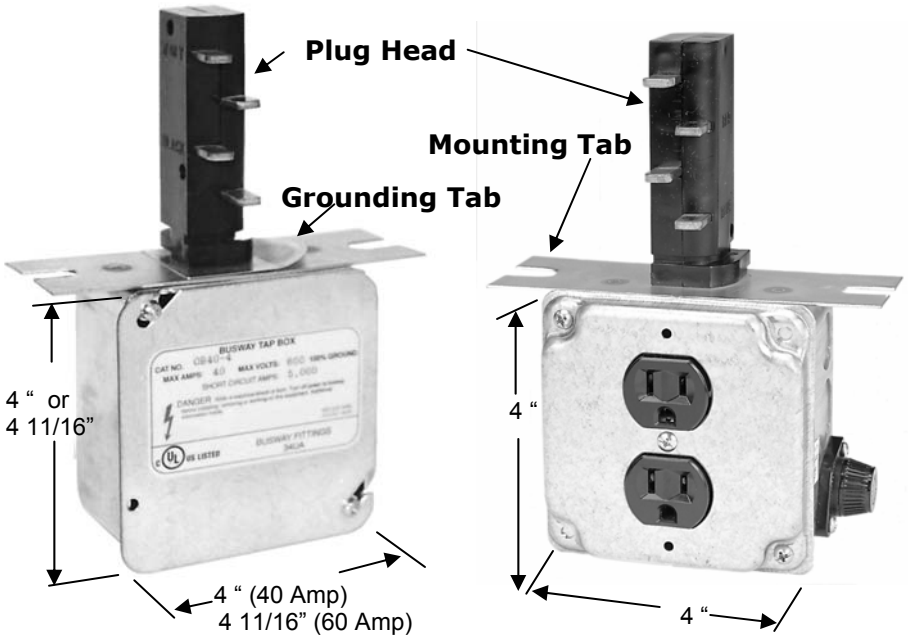
Outlet Plug-In units are used to tap off power from the Busway. All plug-in units are equipped with a plug head and grounding tab which inserts into the Busway continuous slot and turns 90 degrees to make the spring-loaded connection. The installer simply inserts the unit into the Busway, becomes automatically grounded and turns 90 degrees. Unit is locked into position with bolt-on mounting tabs. All plug-in units are polarized to inhibit reverse installation and face in the direction of the Busway conductors. Refer to layout for further explanation.

OB Junction Box

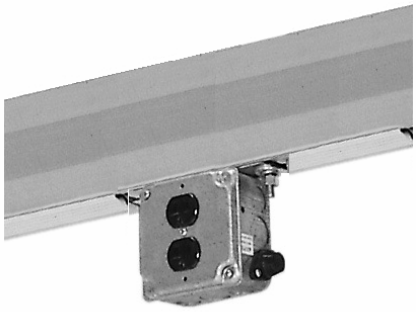
Standard unit consists of J-box with plug-head, cover, ground lug and wire nuts. Optional fuse holders available. Most common NEMA outlet configuration are available.

DRF Unit

Standard unit consists of 4 x 4 J-box with plug-head, NEMA 5-15 or 5-20 duplex, fuse and fuse holder.



OB Junction Box **DRF** Unit



c UL us LISTED

Catalog Number Sequence

(XX)100 – (A) - (XX) - (P)

- Phase (A,B,C)
- No. of Poles
- For DRF= Outlet Amps 15 or 20
  For OB unit = NEMA All with fuses
- System Size
- DRF =Duplex Receptacle with Fuse OR OB = for all other NEMA device

Catalog Number Selection (DRF and OB)

Catalog No.	Description	Weight
Outlet Box		
DRF100-(A,B,C)-15-4	Duplex Outlet NEMA 5-15, 600Volt Max	2.2 lb
DRF100-(A,B,C)-20-4	Duplex Outlet NEMA 5-20, 600Volt Max	2.2 lb
OB100-L530R-4	Outlet, NEMA L5-30 Recpt/w fuse	
OB100-L620R-4	Outlet, NEMA L6-20 Recpt/w fuse	
OB100-L630R-4	Outlet, NEMA L6-30 Recpt/w fuse	
OB100-530Q-4	Outlet, NEMA 5-30 Quad/w fuse	
(NOTE:"R" denotes single receptacle, "Q" denotes Quad)		
Junction Box		
OB100-40-4*	Junction box, 40 Amp, 4-pole	1.5 lb
OB100-60-4*	Junction box, 60 Amp, 4-pole	1.5 lb

***- add "–1F, -2F, -3F" for Type CC Fuse Holders. Fuses ordered separate**

RETURN TO MAIN MENU

Return to PLUG-IN SELECTION

BACK TO SYSTEM VIEW

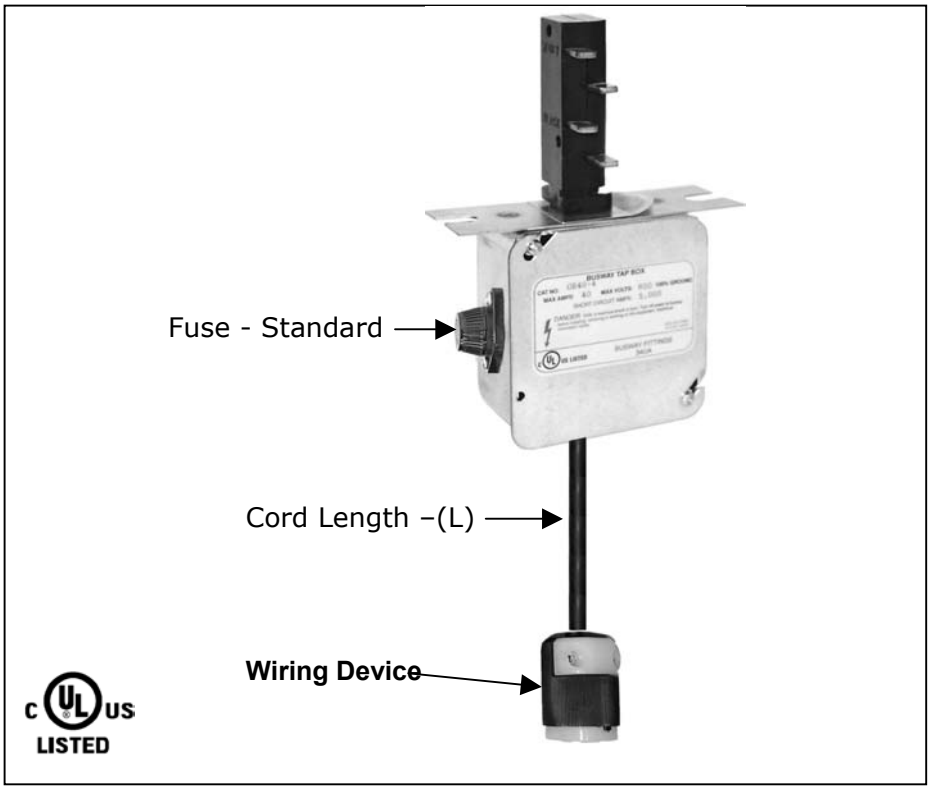
100 Amp

DROP CORD PLUG-IN

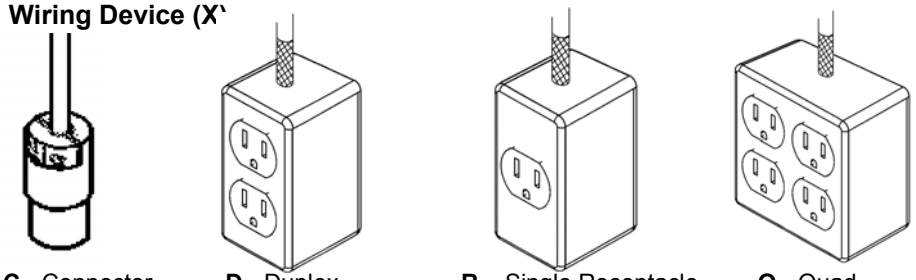
STARLINE TRACK BUSWAY

Drop Cord Assembly

Shipped assembled complete from the factory based on part number selection including cord, fuses, and wiring device. Drop Cord assemblies with connector type (C) wiring device include a wire mesh cord grip at outlet of plug-in box. All other assemblies include wire mesh cord grips at both end of cord. Instead of normal fuse type circuit protection, circuit breakers can be provided. Please note catalog number designation below. Other NEMA configurations are available.



Wiring Device (X`



C - Connector | **D** - Duplex | **R** – Single Receptacle | **Q** - Quad

Catalog Number Sequence
DC100(B)-(L)-(NEMA)(X)-(X)

- **Poles**
- **Wiring Device**
  - **C – Connector**
  - **D – Duplex**
  - **R – Single Receptacle**
  - **Q- Quad**
- **NEMA Configuration**
- **Cord Length ft**
- **Breaker (Fuse normal)**
- **System Size**
- **Drop Cord**

Catalog Number Examples

Catalog No.	Description
DC100-10-520D-4	10 ft Drop Cord with NEMA 5-20 Duplex on end, for 4-pole system
DC100-15-L520C-2	15ft Drop Cord with NEMA L5-20 (locking type) Connector on end for 2-pole system
DC100B-8-L630R-4	8ft Drop Cord with NEMA L6-30 (locking type) single Receptacle (J-Box) on end for 4-pole system

RETURN TO MAIN MENU
Return To PLUG-IN SELECTION
Back to System View

100 Amp

STARLINE TRACK BUSWAY

CIRCUIT BREAKER PLUG-IN

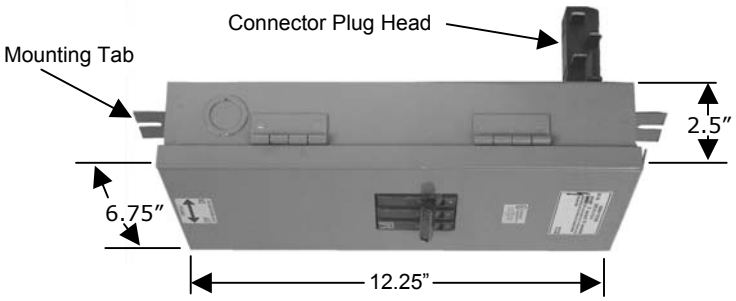
Standard Circuit Breaker

Consist of a full-sized junction box with a hinged lid, plug head and externally operable circuit breaker. Insert the plug head in the Busway, rotate 90 degrees to make electrical connection. Breaker held in position by inserting bolt hangers (supplied) in mounting tabs on either side of unit. Units are normally supplied with the breaker installed, or can be supplied with a snap-in mounting plate.

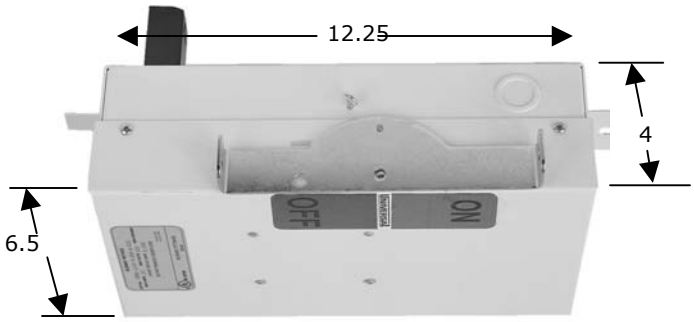
Available from 15 to 100 Amps, 250 or 480 Volt max, 1, 2 or 3 pole. Units with multiple circuit breakers are available and are UL Listed. All units include a copper grounding lug for up to #6AWG. 4-pole unit includes neutral wire and wire nut or neutral block over 40 Amps.

With Disconnect

External rocker arm disconnects circuit breaker before box can be opened.



Standard **CB100** Breaker



With **"-DS"** Disconnect

c UL us LISTED

Catalog Number Sequence

C(B)100–(XX)–(p)-(VVV)-(P)

- **Busway Poles**
- **Volts 250/480**
- **Breaker Poles**
- **Breaker Size 15 to 100 Amps**
- **System Size**
- **with Breaker =B without , leave blank**
- **Circuit Breaker**

Catalog Number Selection

Catalog No.	Description	Weight
CB100-XX-1-250-3	1-Pole, 250V for 3 –pole busway	5.5 lb
CB100-XX-2-250-3	2-Pole, 250V for 3 –pole busway	6 lb
CB100-XX-3-250-3	3-Pole, 250V for 3 –pole busway	6.5 lb
CB100-XX-1-250-4	1-Pole, 250V for 4 –pole busway	5.5 lb
CB100-XX-2-250-4	2-Pole, 250V for 4 –pole busway	6 lb
CB100-XX-3-250-4	3-Pole, 250V for 4 –pole busway	5.5 lb
CB100-XX-1-480-4	1-Pole, 480V for 4 –pole busway	lb
CB100-XX-2-480-4	2-Pole, 480V for 4 –pole busway	lb
CB100-XX-3-480-4	3-Pole, 480V for 4 –pole busway	lb

"XX"=Specify desired amperage rating of the breaker
Add "-DIS" to above catalog number for externally disconnect

RETURN TO MAIN MENU | Return to PLUG-IN SELECTION | BACK TO SYSTEM VIEW

100 Amp

FUSE BLOCK PLUG-IN

STARLINE TRACK BUSWAY

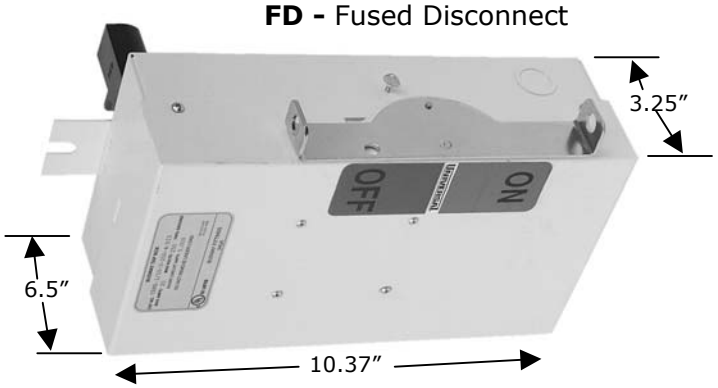
Fuse Block
Consist of a full-sized junction box with hinged lid, fuse block, and plug head. Insert plug head in the Busway, rotate 90 degrees to make electrical connection. Held in position by inserting bolt hangers (supplied) in mounting tabs on either side of unit.

Available in 30,60 and 100 Amp fuse block sizes, 250 or 600 Volt max ratings. A Class H, 3 pole phenolic fuse block is mounted in the box. Fuses are not included; can be ordered separately. All units include a copper grounding lug for up to #6AWG. 4-pole unit includes neutral wire and wire nut or neutral block over 40 Amps. Units have ½ in. and ¾ in. conduit knockouts on 3 sides.

With Disconnect - FD
External rocker arm disconnects fuse before box can be opened.

Terminal Block – TB
Available with 3 or 4-pole insulated terminal block.

FD - Fused Disconnect



TB – Terminal Block

c UL us LISTED

Catalog Number Sequence
(XX)100–(XX)–3-(VVV)-(P)

- (P) Busway Poles
- (VVV) Voltage 250/600
- 3 Positions
- (XX) Amp Rating
- 100 System Size
- (XX) FD – Fused Disconnect, TB - Terminal Block

Catalog Number Selection

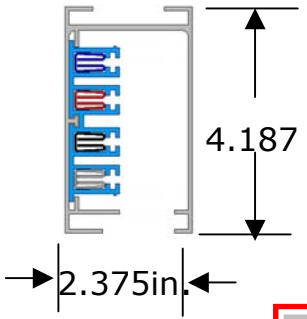
Catalog No.	Description	Weight
FD100-30-3-250-3	Fused Disconnect, 30A, 250V, 3-pole	5.5 lb
FD100-30-3-250-4	Fused Disconnect, 30A, 250V, 4-pole	5.5 lb
FD100-60-3-250-3	Fused Disconnect, 60A, 250V, 3-pole	5.5 lb
FD100-60-3-250-4	Fused Disconnect, 60A, 250V, 4-pole	5.8 lb
FD100-30-3-600-3	Fused Disconnect, 30A, 600V, 3-pole	5.5 lb
FD100-30-3-600-4	Fused Disconnect, 30A, 600V, 4-pole	5.5 lb
FD100-60-3-600-3	Fused Disconnect, 60A, 600V, 3-pole	5.5 lb
FD100-60-3-600-4	Fused Disconnect, 60A, 600V, 4-pole	5.8 lb
TB100-40-3	Terminal Block, 40A, 600V, 3-pole	5.5 lb
TB100- 100-3	Terminal Block, 100A, 600V, 3-pole	6 lb

RETURN TO MAIN MENU
Return to PLUG-IN SELECTION
BACK TO SYSTEM VIEW

Standard B225 Amp System to 600 Volts

Also B160 or 160 Amp Systems

2, 3 or 4 pole with/without Isolated ground



End Cap

Support Hardware

Housing Section

End Piece

Tee

Power Feed

Installation Tool

Coupler

Elbow

Plug-In Units

Accessories - Closure Strip, Wt. Hook,etc

RETURN TO MAIN MENU

Return To SYSTEM SELECTION

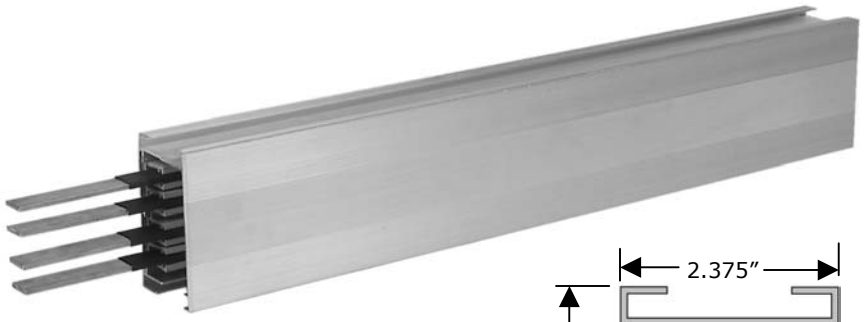
225 Amp

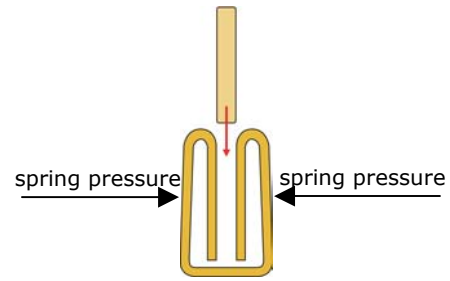
STARLINE TRACK BUSWAY

HOUSING SECTIONS

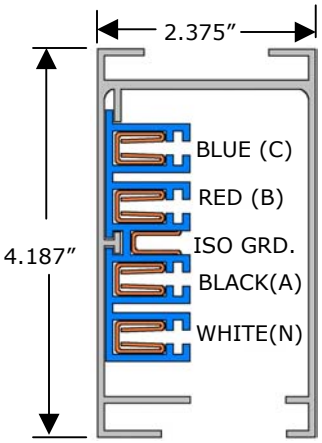
Track Busway housing section consists of an extruded aluminum shell with "spring-pressure" type copper channel busbars contained in a full length PVC insulator mounted on one side on the interior wall. The aluminum extrusion acts as a 100% ground path meeting UL 857 Standard and complies with applicable paragraphs of Section 250 of the NEC. Each housing has an open access slot over its entire length for the insertion of turn-n-lock plug-in units.. Housing configurations include 2, 3 and 4 pole varieties with 600 Volt maximum rating. Each housing section has male stabs protruding at one end which fit into the channels of the adjoining section. Installation tool is used to force the stabs into the busbar channels for a solid "spring-loaded" electrical connection.

MATERIAL: Extruded Aluminum 6005-T5 unpainted
RATINGS: 100% Ground Path 225 Amp, 600 Volt
LENGTH: 5 Ft, 10 Ft , 20 Ft.
INSULATION: PVC
VOLTAGE DROP: distributed load Single Phose 40ft (.8PF)





"Spring-pressure" channel busbar



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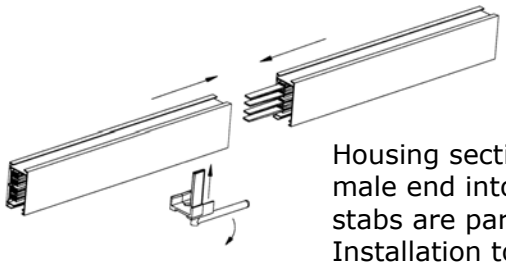
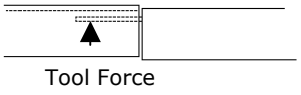




Housing sections are joined by inserting male end into open female end so that stabs are parallel to female slots. Installation tool is then rotated to force stabs into slots.

Catalog Number Sequence

B225(G)–(X)PG–(L)

- (L) → Length 5, 10 or 20 or custom length
- (X) → No. of Poles
- (G) → G-Isolated Ground
- B225 → System size

Catalog Number Selection

Catalog No.	Description	Length	Weight
B225-3PG-5	225 Amp, 3-pole	5 feet	16 lb
B225-3PG-10	225 Amp, 3-pole	10 feet	29 lb
B225-3PG-20	225 Amp, 3-pole	20 feet	57 lb
B225-4PG-5	225 Amp, 4-pole	5 feet	17 lb
B225-4PG-10	225 Amp, 4-pole	10 feet	33 lb
B225-4PG-20	225 Amp, 4-pole	20 feet	64 lb
B225G-4PG-10	225 Amp, 4-pole, Iso Grd	10 feet	35 lb
B225G-4PG-20	225 Amp, 4-pole, Iso Grd	20 feet	68 lb

RETURN TO MAIN MENU

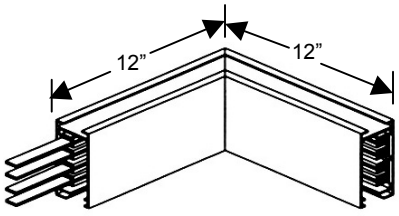
BACK TO SYSTEM VIEW

225 Amp

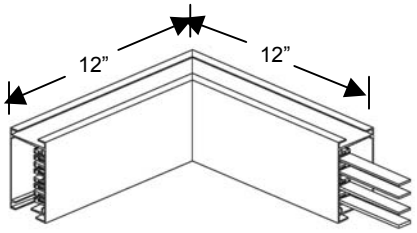
ELBOW SECTIONS

Elbow Section
Elbows are used for making a 90 degree in a Busway run. Specify right or left elbow, according to the orientation of the busbars in the Busway sections to be connected. Refer to Layout B225 for detail. Tee sections are connected to adjacent Busway sections using Installation Tool B225IT. Coupler set BNC-2 (ordered separately) is used to mechanically connect top and bottom of Tee section to adjacent Busway.

Horizontal Elbow



Right Elbow



Left Elbow

Installed with couplers

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Catalog Number Sequence
EL 225-(P)–(X)

- **Direction** — **Right, Left, Up, Down**
- **Number of System Poles**
- **Elbow**

Catalog Number Selection

Catalog No.	Description	Weight
EL225-3-L	Elbow, horizontal, 3-pole, left	5.5 lb
EL225-3-R	Elbow, horizontal, 3-pole, right	5.5 lb
EL225-4-L	Elbow, horizontal, 4-pole, left	5.5 lb
EL225-4-R	Elbow, horizontal, 4-pole, right	5.5 lb
EL225-4-U	Elbow, up, 4-pole	5.5 lb
EL225-4-D	Elbow, down, 4-pole	5.5 lb
AD225-4	Male to Male Adapter, 4-pole	

RETURN TO MAIN MENU

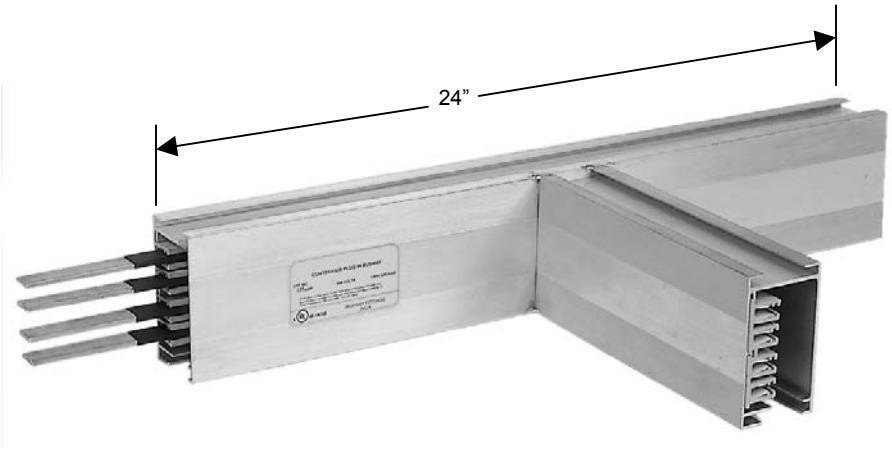
BACK TO SYSTEM VIEW

225 Amp

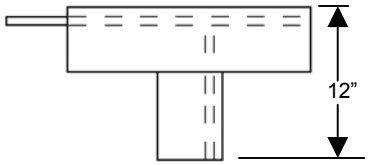
TEE SECTIONS

Tee Section

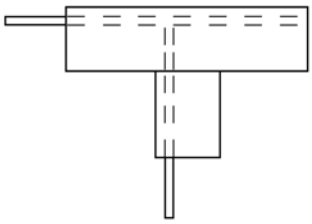
Tee sections are used for creating a 90 degree branch leg in a Busway run. When laying out a system, specify the correct busbar crientation of the tee. Indicate right or left, external or internal busbars. External tees are preferred. Refer to Layout B225 for further detail. Tee sections are connected to adjacent Busway sections using Installation Tool B225IT. Coupler set BNC-2 (ordered separately) is used to mechanically connect top and bottom of Tee section to adjacent Busway.



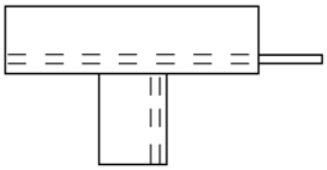
External Right -ER



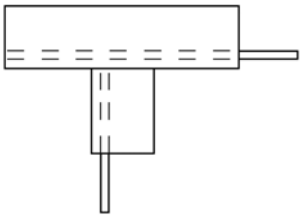
External Left -EL



Internal Right -IR



Internal Left -IL



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Catalog Number Sequence

T225- (P)–(XX)

- **Direction** — External or Internal Right or Left
- **System Poles**
- **System Size**
- **Tee**

Catalog Number Selection

Catalog No.	Description	Weight
T225-4-IL	Tee, 4-pole, Internal Left	9.2 lb
T225-4-EL	Tee, 4-pole, External Left	9.2 lb
T225-4-IR	Tee, 4-pole, Internal Right	9.2 lb
T225-4-ER	Tee, 4-pole, External Right	9.2 lb

RETURN TO MAIN MENU

Back to System View

225 Amp

POWER FEED UNITS

STARLINE TRACK BUSWAY

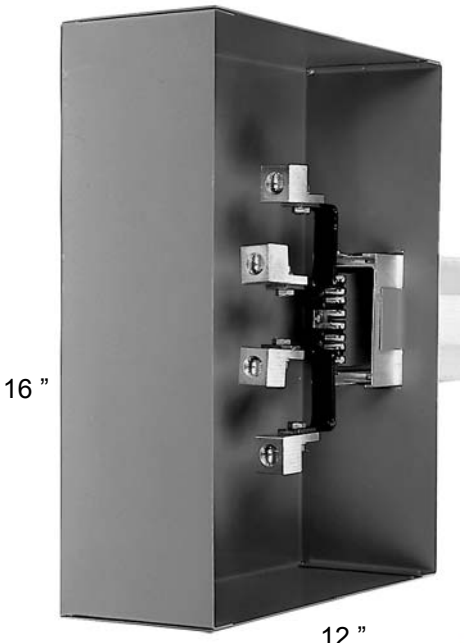
Supplying power to End of Busway

End Power Feed Units

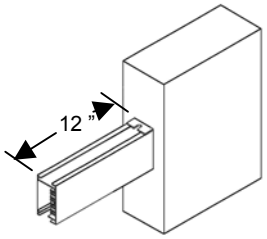
Standard End Power Feed units connect to the male end of the Busway. Factory assembled unit consists of a 12 X 16 X 5 in. steel junction box, with removable side, connected to a 1 foot section of Busway. The assembly includes connection lugs, ground lug and shrink tubing for wire wires up to 300 MCM. End feed units for connection to female Busway ends are also available.

End Power Feed units are connected to adjacent Busway sections using Installation Tool B225IT and Coupler Set BHC-2.

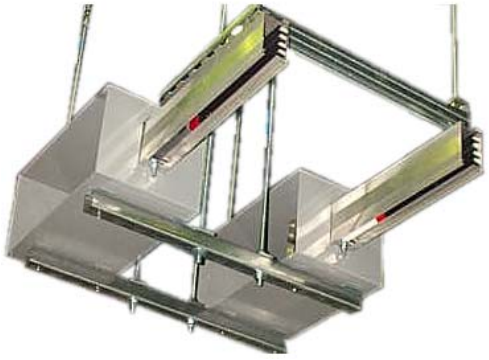
Special need power feed units for confined spaces as might be found in Mission Critical Data Centers can also be designed and fabricated, requiring minimum quantities.



Installed with couplers



Assembled with 1 ft of Busway



Data Center custom units can also be fabricated with minimum quantities

c UL us LISTED

Catalog Number Sequence

EF225–(P)

- **System Poles**
- **System size**
- **End Feed**

Catalog Number Selection

Catalog No.	Description	Weight
EF225-4	End Feed, 4-Pole	16.5 lb
EF225-3	End Feed, 3-Pole	16 lb
EF225-4M	End Feed, 4-Pole male Busway end	16.5 lb
EF225-3M	End Feed, 3-Pole male Busway end	16.5 lb

RETURN TO MAIN MENU

Back to SYSTEM VIEW

225 Amp

STARLINE TRACK BUSWAY

PLUG-IN SELECTION

Outlet or Junction Boxes

Fused Duplex Recptacles

Pre-Assembled Drop Cords

Circuit Breakers

Fuse Blocks

Fused Disconnects

Terminal Blocks

Mini-Panel

RETURN TO MAIN MENU

225 Amp

OUTLET PLUG-IN UNITS

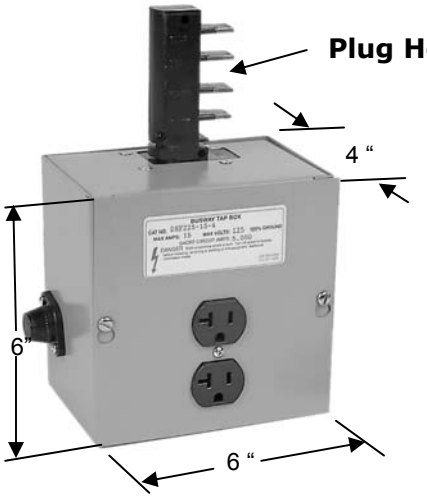
Plug-in units are used to tap off power from the Busway. All plug-in units are equipped with a plug head and grounding tab which inserts into the Busway continuous slot and turns 90 degrees to make the spring-loaded connection. The installer simply inserts the unit into the Busway, becomes automatically grounded and turns 90 degrees. Unit is locked into position with bolt-on mounting tabs. All plug-in units are polarized to inhibit reverse installation and face perpendicular or parallel to the Busway run. Refer to layout for further explanation.

OB Junction Box

Standard unit consists of a 6 x 6 x4 in. box with plug-head, cover, ground lug and wire nuts. Optional fuse holders available. Most common NEMA outlet configuration are available.

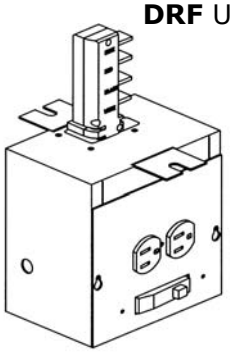
DRF Unit

Standard unit consists of 6 x6 x 4 J-box with plug-head, NEMA 5- 5-20 duplex, fuse and fuse holder.



DRF Unit

OB Junction Box
(shown with two fuses)

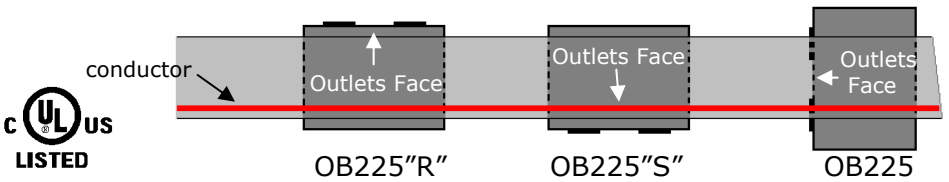


OB unit with
Circuit Breaker
DRB Unit

Standard
perpendicular facing
outlet

“S” for Side or
parallel facing outlet

OUTLETS FACING DIRECTION



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Catalog Number Sequence

OB225(S)-(XXXX)–(P)

- **Number of System Poles**
- **NEMA Config**
- **Side or Parallel Face**
  R – Opposite Face
- **System Size**
- **Outlet Box**

Common Catalog Number Selection

Catalog No.	Description	Weight
OB225-30-4*	Outlet Box, 30 Amp, 4-pole	4.2 lb
OB225-30-3*	Outlet Box, 30 Amp, 3-pole	4 lb
OB225-60-4*	Outlet Box, 60 Amp, 4-pole	4.2 lb
OB225-60-3*	Outlet Box, 60 Amp, 3-pole	4 lb
DRF225-20-4	Duplex receptacle, fused, 4-pole	4.3 lb
DRB100-20-4	Duplex with 20A breaker, 4-pole	5 lb
OB225-L530-4	Outlet , NEMA L5-30, 4-pole	
OB225-L620-4	Outlet , NEMA L6-20, 4-pole	
OB225-L630-4	Outlet , NEMA L6-30, 4-pole	
OB225-530Q-4	Outlet , NEMA 5-30 Quad, 4-pole	

* - add”-1F, -2F or 3F for Type CC fuse holders. Order Type CC fuses separately

RETURN TO MAIN MENU

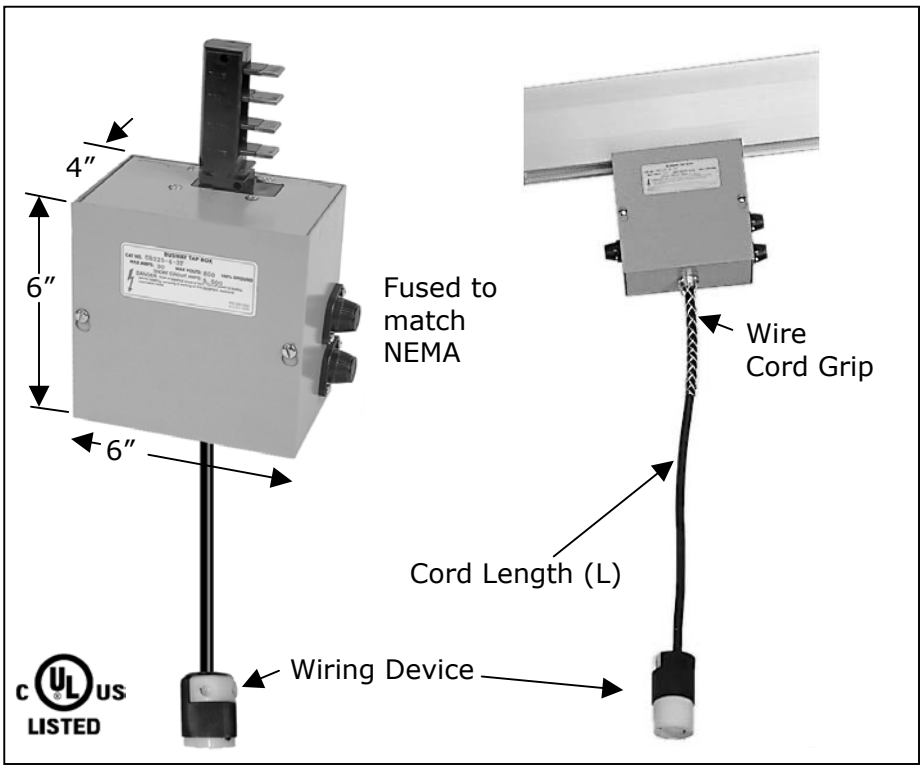
Return to PLUG-IN SELECTION

BACK TO SYSTEM VIEW

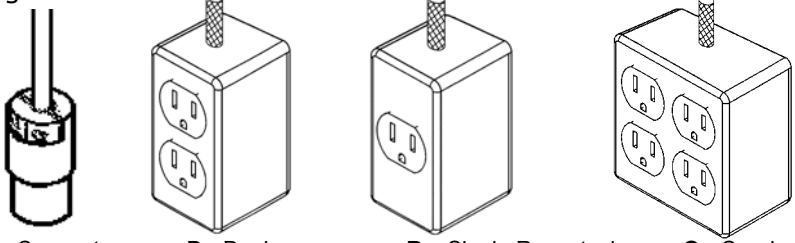
225 Amp

DROP CORD PLUG-IN

Drop Cord Assembly
Shipped assembled complete from the factory based on part number selection including cord, fuses, and wiring device. Drop Cord assemblies with connector type (C) wiring device include a wire mesh cord grip at outlet of plug-in box. All other assemblies include wire mesh cord grips at both end of cord. Instead of normal fuse type circuit protection, circuit breakers can be provided. Please note catalog number designation below. Many other NEMA configurations available.



Wiring Devices



C - Connector | **D** - Duplex | **R** – Single Receptacle | **Q** - Quad

Catalog Number Sequence
DC225(B)-(L)–(NEMA)(X)–(Y)

- **Poles**
- **Wiring Device**
  - **C** – Connector
  - **D** – Duplex
  - **R** – Single Receptacle
  - **Q**- Quad
- **NEMA Configuration**
- **Cord Length ft**
- **Breaker** (Fuse normal)
- **System Size**
- **Drop Cord**

Common Catalog Number Examples

Catalog No.	Description
DC225-10-520D-4	10 ft Drop Cord with NEMA 5-20 Duplex on end, for 4-pole system
DC225-15-L520C-2	15ft Drop Cord with NEMA L5-20 (locking type) Connector on end for 2-pole system
DC225B-8-L630R-4	8ft Drop Cord with Circuit Breaker and NEMA L6-30 (locking type) single Receptacle (J-Box) on end for 4-pole system

RETURN TO MAIN MENU | Return to PLUG-IN SELECTION | Back to System View

225 Amp

STARLINE TRACK BUSWAY

CIRCUIT BREAKER SELECTION

VERTICAL Circuit Breakers

HORIZONTAL Circuit Breakers

RETURN TO MAIN MENU

Return to PLUG-IN SELECTION

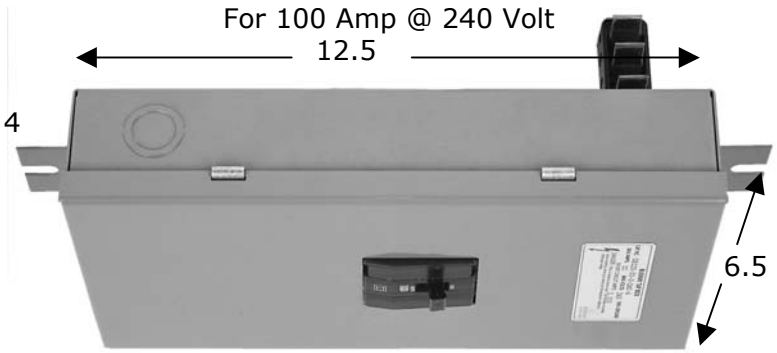
BACK TO SYSTEM VIEW

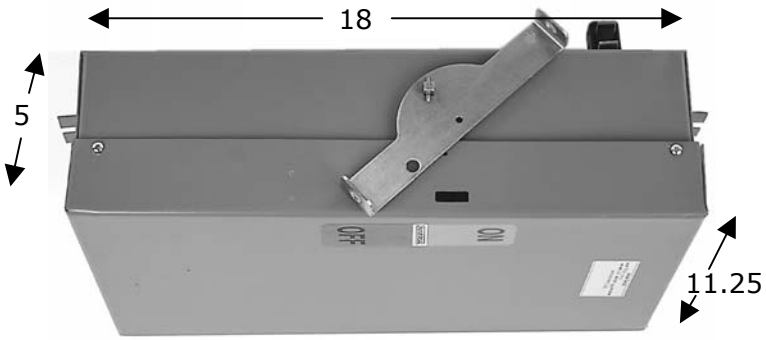
225 Amp

CIRCUIT BREAKER PLUG-IN
HORIZONTAL (Down Facing) TYPE

STARLINE TRACK BUSWAY

Horizontal Circuit Breaker
Basic circuit breaker plug-in faces downward and is available in a wide variety of ratings up to 600 Volt. Selection information for these units should include amp rating, voltage rating, number of breaker poles and Busway system poles. All circuit breakers are mounted internally. A floor operable external discount is also available. Units can also be ordered with various drop cord configuration. Refer to 225 Amp Drop Cords for selection information.





Floor operable Disconnect

For all 480 & 600 Volt

Catalog Number Sequence
CB225–(aa)–(y)-(vvv)-(P)

- **System Poles**
- **Voltage**
  - **240**
  - **277**
  - **480**
  - **600**
- **Breaker Poles 1,2 or 3**
- **Breaker Rating**
  - **aa = 10 to 100 amp**
  - **cc = 15 to 100 amp**
  - **dd = 15 to 150 amp**
  - **ee = 15 to 150 amp**
  - **&**
  - **175 to 225 amp**
- **Circuit Breaker 225 Amp**

Typical Catalog Number Selection

Catalog No.	Description	Weight
CB225-aa-y-240-4	240 Volt for 4-pole Busway	8 lb
CB225-aa-y-240-3	240 Volt for 3-pole Busway	8 lb
CB225-dd-1-277-4	1-pole, 277 Volt /4-pole Busway	19 lb
CB225-dd-1-277-3	1-pole, 277 Volt /3-pole Busway	19 lb
CB225-ee-2-480-4	2-pole, 480 Volt /4-pole Busway	29 lb
CB225-ee-2-480-3	2-pole, 480 Volt /3-pole Busway	29 lb
CB225-ee-3-600-4	3-pole, 600 Volt /4-pole Busway	29.5lb
CB225-ee-3-600-3	3-pole, 600 Volt /3-pole Busway	29.5lb

RETURN TO MAIN MENU

Return to BREAKER SELECTION

BACK TO SYSTEM VIEW

Return to PLUG-IN SELECTION

225 AMP

STARLINE TRACK BUSWAY

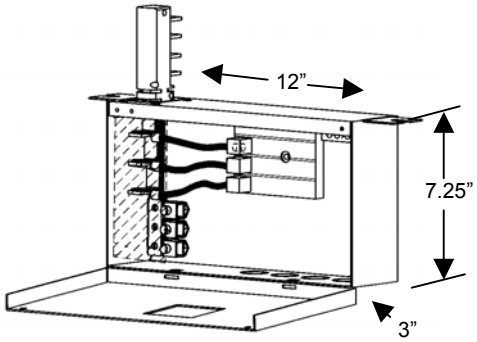
CIRCUIT BREAKER PLUG-IN
VERTICAL (Front Operable) TYPE

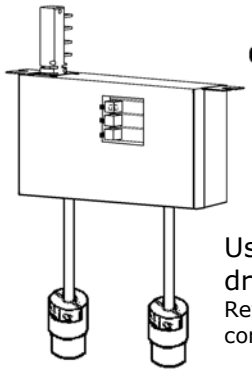
Vertical Circuit Breaker
Basic circuit breaker is front operable and comes with circuit breaker base that will accommodate 1, 2 or 3-pole plug-in circuit breakers up to 240 volt. Basic unit is rated for 22kAIC with breaker options for both 10 and 22kAIC. Selection information for these units should include amp rating, number of breaker poles and Busway system poles. Units is very versatile and can also be ordered with various outlet and drop cord configurations. Refer to 100 Amp Drop Cords for selection information.

Catalog Number Sequence

CB225–(aa)–(y)-240-(P)

- System Poles
- Voltage
- Breaker Poles 1,2 or 3
- Breaker Rating
  aa=15to100 amp 10kAIC
  cc = 15to100 amp 22kAIC
- Circuit Breaker for 225A





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Used with drop cords
Refer to drop cord section

Typical Catalog Number Selection

Catalog No.	Description	Weight
CB225-aa-1-240-4	240V, 10kAIC, 1-pole for 4-pole Busway	8 lb
CB225-aa-1-240-3	240V, 10kAIC 1-pole for 3-pole Busway	8 lb
CB225-cc-1-240-4	240V, 22kAIC 1-pole for 4-pole Busway	8 lb
CB225-cc-1-240-3	240V, 22kAIC 1-pole for 3-pole Busway	8 lb
CB225-aa-2-240-4	240V, 10kAIC, 2-pole for 4-pole Busway	8 lb
CB225-aa-2-240-3	240V, 10kAIC 2-pole for 3-pole Busway	8 lb
CB225-cc-2-240-4	240V, 22kAIC 2-pole for 4-pole Busway	8 lb
CB225-cc-2-240-3	240V, 22kAIC 2-pole for 3-pole Busway	8 lb
CB225-aa-3-240-4	240V, 10kAIC, 3-pole for 4-pole Busway	8 lb
CB225-aa-3-240-3	240V, 10kAIC 3-pole for 3-pole Busway	8 lb
CB225-cc-3-240-4	240V, 22kAIC 3-pole for 4-pole Busway	8 lb
CB225-cc-3-240-3	240V, 22kAIC 3-pole for 3-pole Busway	8 lb

aa = 15 to 100 Amp, 10kAIC cc = 15 to 100 Amp, 22kAIC

RETURN TO MAIN MENU
Return to BREAKER SELECTION
Return to PLUG-IN SELECTION
BACK TO SYSTEM VIEW

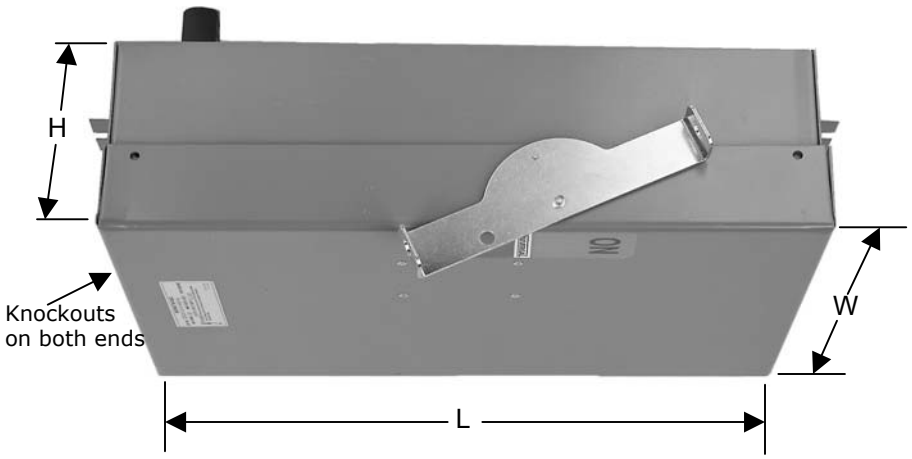
225 Amp

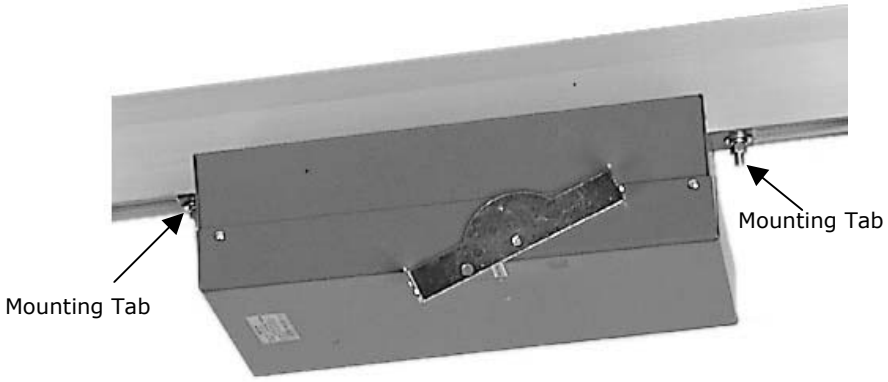
FUSED DISCONNECT PLUG-IN

STARLINE TRACK BUSWAY

Fused Disconnect
Standard units include J-box, plug head, removable lid, fuse blocks rated at 30, 60, 100 or 200 Amp max, a floor operable disconnect all rated at 600 Volt max. Standard fuse blocks take Class J Fuses. Fuses are not included and may be ordered separately.

All units include two mounting bolts and a ground lug. All4-pole units includea neutral connection. Knockouts are provided on two sides. Drop cord assemblies are also available as needed.





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Catalog Number Sequence
FD225–(XX) –600- (P)

- System Poles
- Voltage Rating
- Fuse Block Size 30,60,100,200Amp
- System size
- Fused Disconnect

Catalog Number Selection

Catalog No.	Description	Weight	Size inches L	W	H
FD225-30-600-3	30A, 600V, 3-pole	16 lb	18	11.25	5
FD225-30-600-4	30A, 600V, 4-pole	16.5 lb	18	11.25	5
FD225-60-600-3	60A, 600V, 3-pole	17.5 lb	18	11.25	5
FD225-60-600-4	60A, 600V, 4-pole	18 lb	18	11.25	5
FD225-100-600-3	100A, 600V, 3-pole	18.5 lb	18	11.25	5
FD225-100-600-4	100A, 600V, 4-pole	19 lb	18	11.25	5
FD225-200-600-3	200A, 600V, 3-pole	40 lb	21.25	13.50	8
FD225-200-600-4	200A, 600V, 4-pole	40.7 lb	21.25	13.50	8

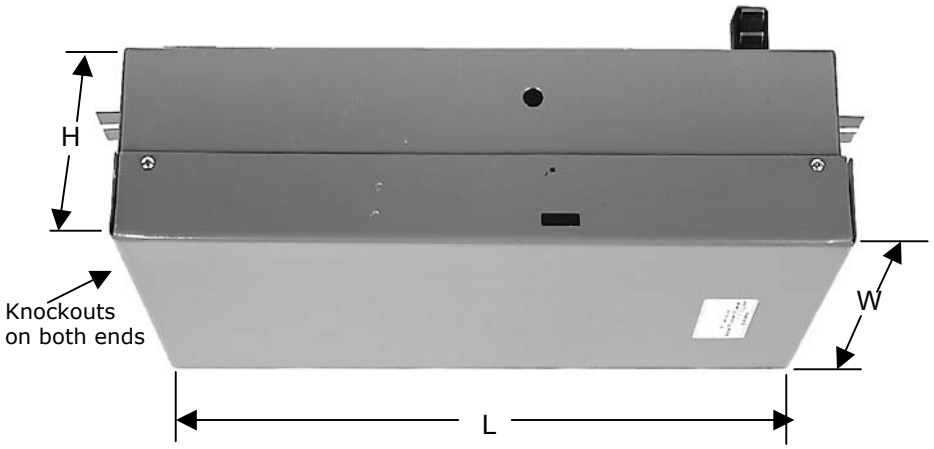
RETURN TO MAIN MENU
Return to PLUG-IN SELECTION
BACK TO SYSTEM VIEW

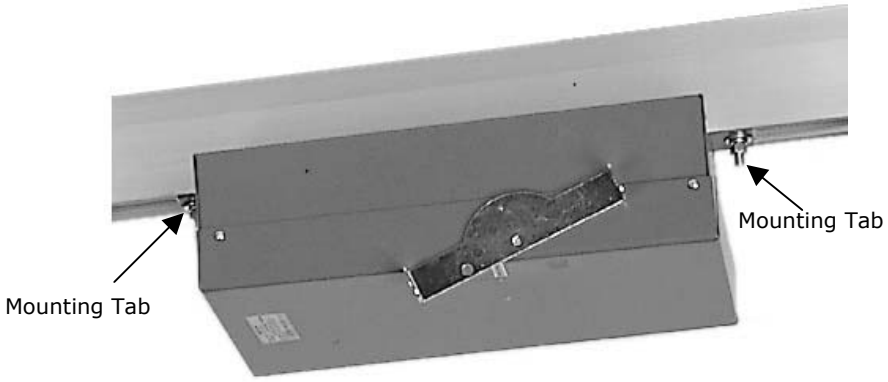
225 Amp

STARLINE TRACK BUSWAY

TERMINAL BLOCK PLUG-IN

Terminal Block
Plug-In units with a 3 or 4-pole insulated terminal block, rated at 100, 160 or 225 Amps are used for direct wire tap off, or for a center power feed. All units include a ground lug. All 4-pole units include a neutral block.





c UL us LISTED

Catalog Number Sequence
TB225–(XX) –(P)

- (P) → System Poles
- (XX) → Block Size 100,160,225Amp
- 225 → System size
- TB225 → Terminal Block

Catalog Number Selection

Catalog No.	Description	Weight	Size inches L	W	H
TB225-100-4	100A, 600V, 4-pole	16 lb	12.5	6.5	2.5
TB225-160-4	160A, 600V, 4-pole	17 lb			
TB225-225-4	225A, 600V, 4-pole	16 lb	18	11	4

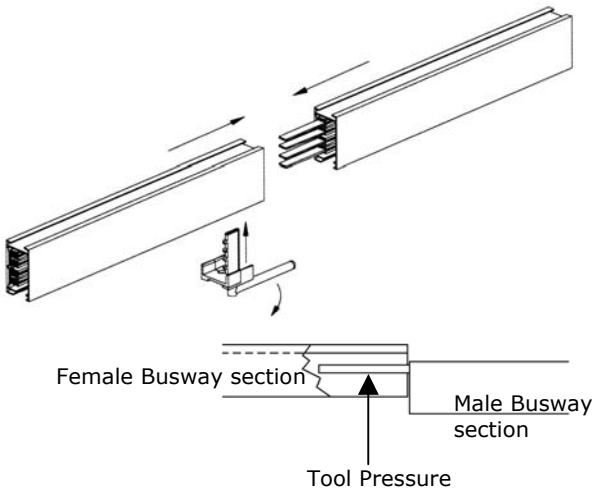
RETURN TO MAIN MENU | Return to PLUG-IN SELECTION | BACK TO SYSTEM VIEW

100/225Amp

STARLINE TRACK BUSWAY

INSTALLATION TOOLS

Used to connect two adjacent sections of Busway. Busway sections are first offset and butted together so that male stabs line up parallel to female busbar conductors. Installation tool is then inserted into joined intersection and rotated 90º forcing stabs into u-shaped female conductors making a spring-loaded, secure electrical connection. Mechanical Couplers (BHC) are then positioned over joined sections and tightened.

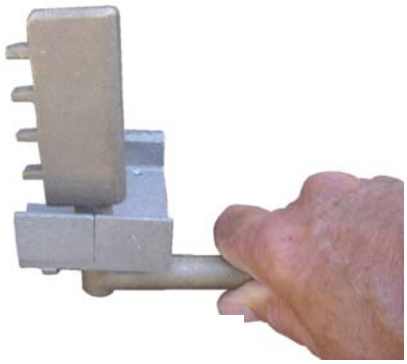


For Standard B100

PART NUMBER

B100IT

Weight 2.5 lb



For B100N, B100NG & B225, B225G

PART NUMBER

B225IT

Weight 2.5 lb

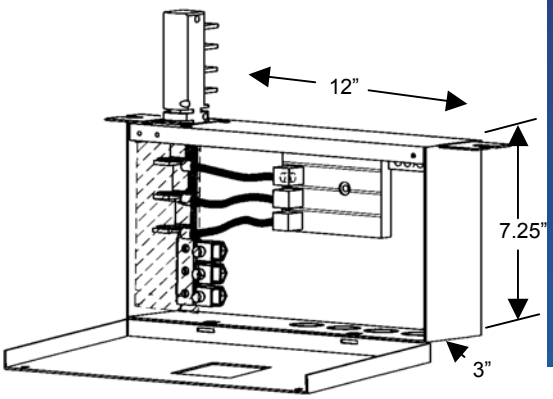
RETURN TO MAIN MENU **Return to 100 Amp System** **Return to 225 Amp System**

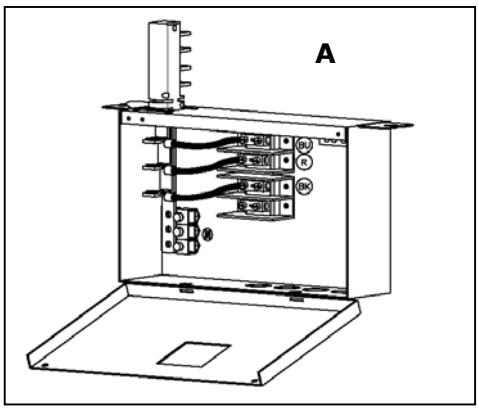
100 or 225 AMP

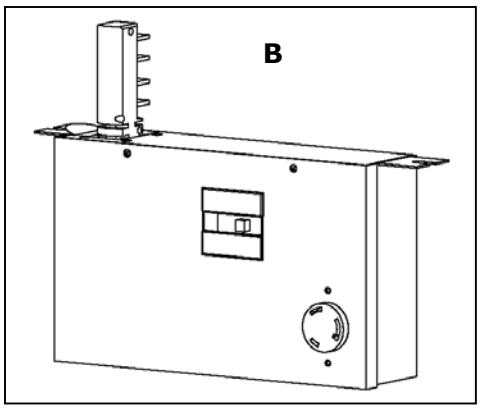
STARLINE TRACK BUSWAY

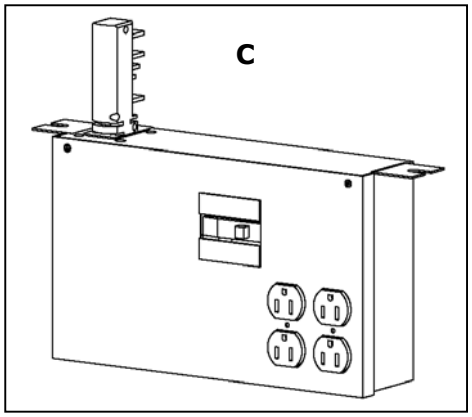
MINI-PANEL

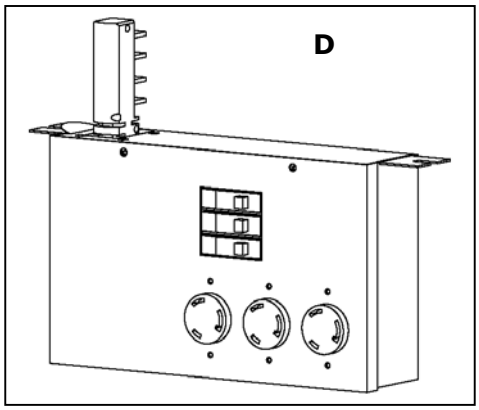
Vertical Mini-Panel
A multiple purpose vertical face panel and, due to its design, can be easily custom designed for a wide variety of applications. Some examples shown below. Consult local Applications Engineer for your special needs.

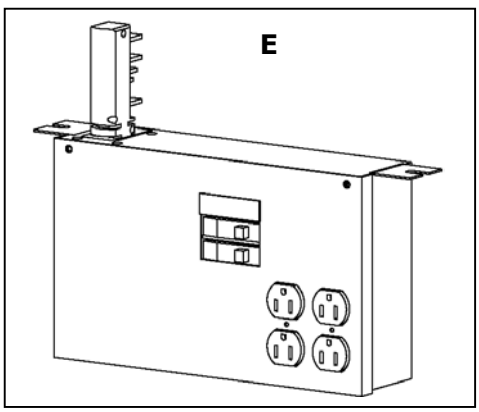


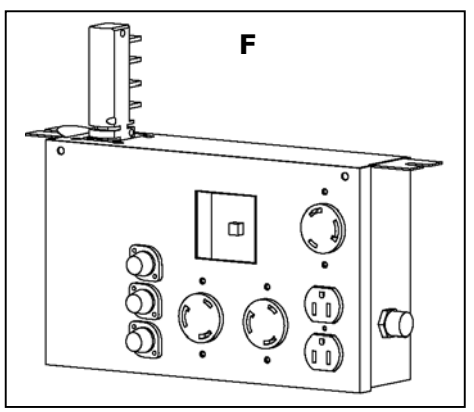












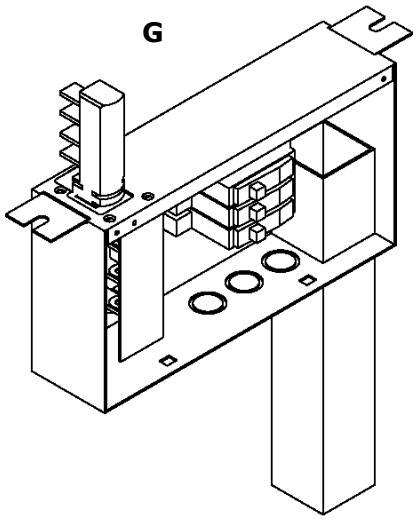
More - Next page

100 or 225 AMP

STARLINE TRACK BUSWAY

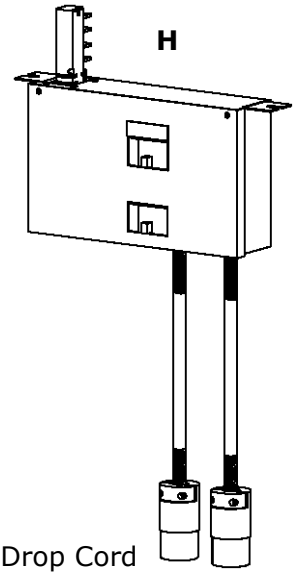
MINI-PANEL (Examples con't)

G



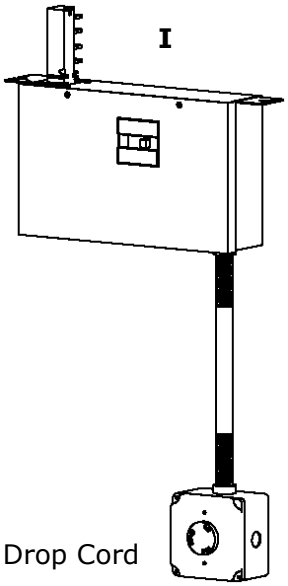
with Power Pole

H



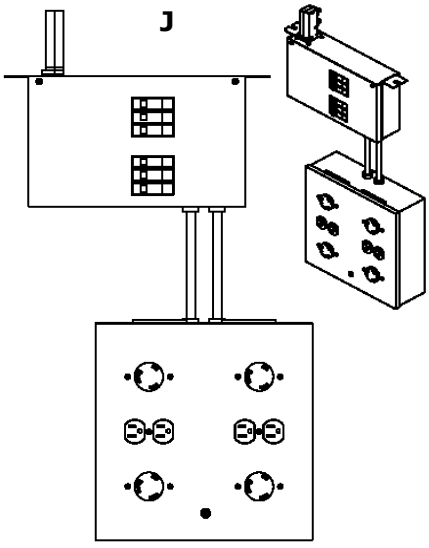
as Drop Cord

I

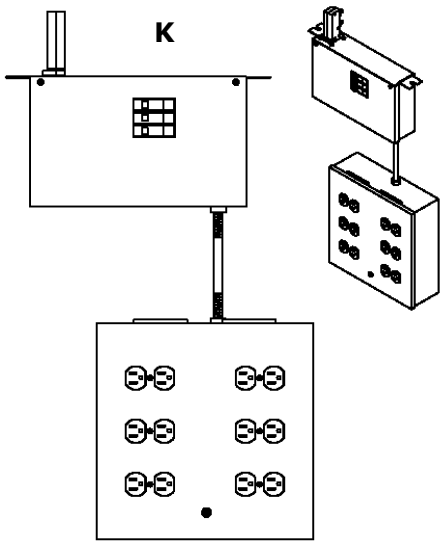


as Drop Cord

J



K



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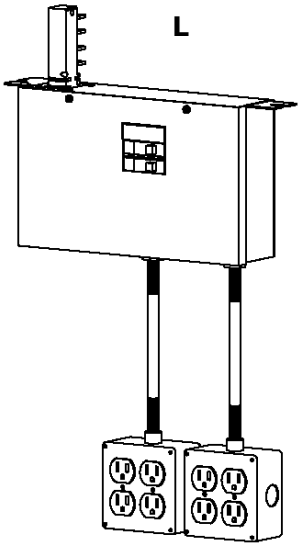


Return to 100 Amp System View | Return to 225 Amp System View

Return to 100 Amp Plug-In Selection | Previous Page | Return to 225 Amp Plug-in Selection

Monitoring

STARLINE TRACK BUSWAY

Current - Individual Circuit

Current - Local Bus Run

Current - Remote Bus Run

RETURN TO MAIN MENU

Current Monitoring

STARLINE TRACK BUSWAY

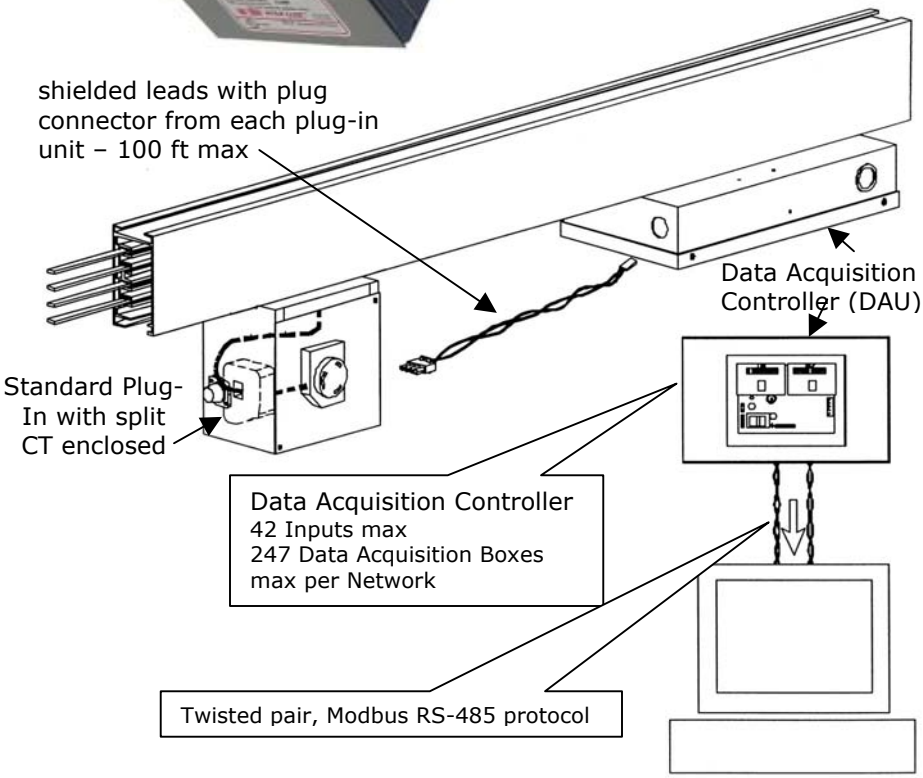
INDIVIDUAL CIRCUIT

The STARLINE Current Monitoring System (CMS) is a distributed data acquisition system that enables monitoring and reading, in amperes, of current draw for any given plug-in unit on the STARLINE Track Busway system. Each circuit of a plug-in unit may be monitored independently.

SPLIT-CORE TRANSFORMER
Split-core current transformers (CT's) can be either installed in the factory or field installed, one for each circuit. Each CT's current-sensing lead (100 ft max.) is routed to the Data Acquisition Controller (DAU). The DAU converts waveforms to a digital format that is transmitted serially to a customer provided host processor via Modbus RS-485 protocol. Up to 42 circuits can be monitored by any single DAU and up to 247 DAU's can be used in any single network or 10,347 individual circuits.

HOST PROCESSOR
The standard CMS is capable of communicating to a Host Processor via the Modbus protocol. Please consult factory for other protocols. The Host Processor is responsible for the application level functions of the system. Typical of the Host Processors are the DataTrax and ALC monitoring systems.

Custom down-facing plug-in with Current Monitor port



SYSTEM SPECIFICATIONS
Power Source: 120VAC, 50/60Hz STARLINE Busway
Number of Channels: 10,347
Data Acquisition Controller: 1 to 42 circuits
Maximum Distance: 100 feet CT to DAU
Current Sense Leads: 18AWG twisted/shielded pair
Update Rate: 1.2 sec minimum
Accuracy: +/- 5% from 5A to 50A true RMS
CT Frequency: 50/60Hz
Operating Temperature: 0 to 60C

RETURN TO MAIN MENU

Current Monitor Selection

Current Monitoring

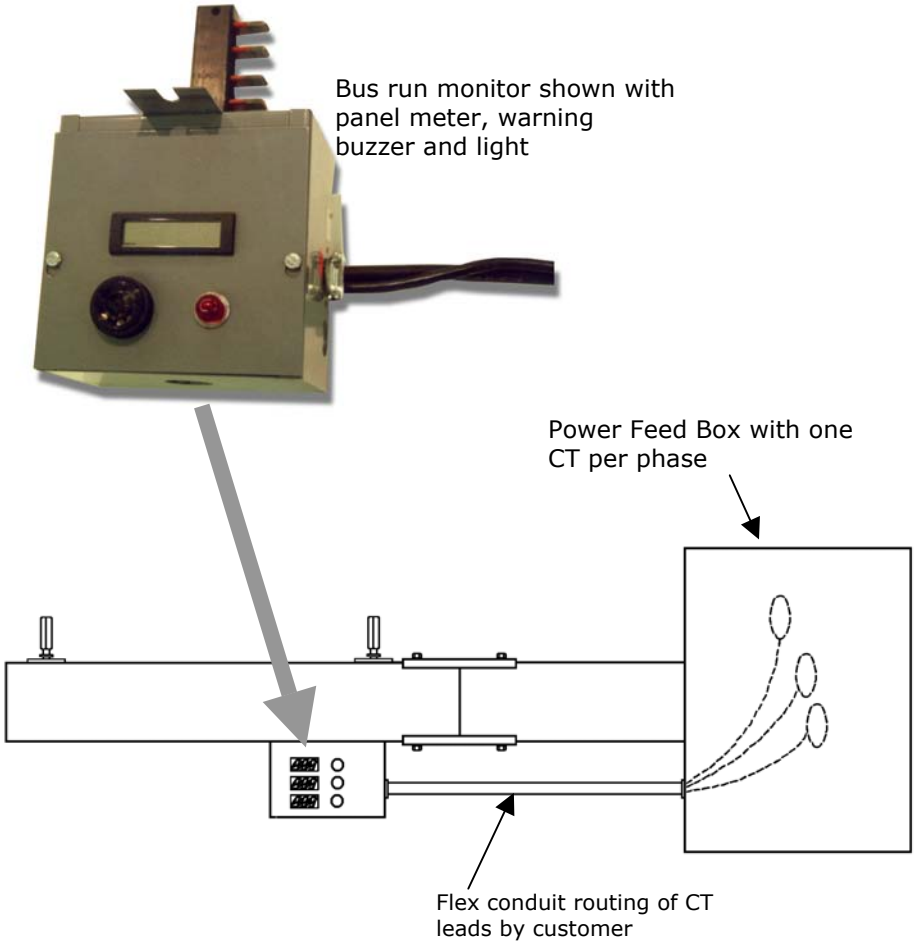
STARLINE TRACK BUSWAY

LOCAL BUS RUN

For monitoring the loading of a given run of STARLINE Track Busway. Typically done as a means of preventing the Busway from being overloaded and potentially tripping the over current device protecting the Busway. The Bus Run Monitor plugs in directly into the Busway section adjacent to the power feed. The main power supply cables pass through current transformers (CT's) that are connected to indicating devices on the Bus Run Monitor. The Monitor may contain combinations of digital panel meters, lights, buzzers, contacts or switches. Basic options are one meter with a selector or three meters. Various alarm units provide a current sensor with an adjustable trip point for each alarm.

CURRENT TRANSFORMERS

Current Transformers (CT's) are required for each circuit being monitored. Supplied as part of the Power Feed Current Monitor, the solid-core CT's are installed by the customer during initial Busway installation. Split-Core CT's are also available for retrofit of existing installations. The secondary wire leads from the CT's must be routed from the Busway power feed to the Current Monitor Plug-In Unit using a short piece of flexible conduit



BASIC PART NUMBER

PFCM(XX) –(Configuration)-4

- **No. of system poles**
- **-1M One selectable meter**
- **-3M Three meters, one for each phase**
- **-1M3A one selectable meter, three alarms**
- **-3M3A Three meters, three alarms**
- **System Size (60, 100, 225 Amp)**
- **Power Feed Current Monitor**

RETURN TO MAIN MENU

Previous Page

Current Monitoring

STARLINE TRACK BUSWAY

REMOTE BUS RUN

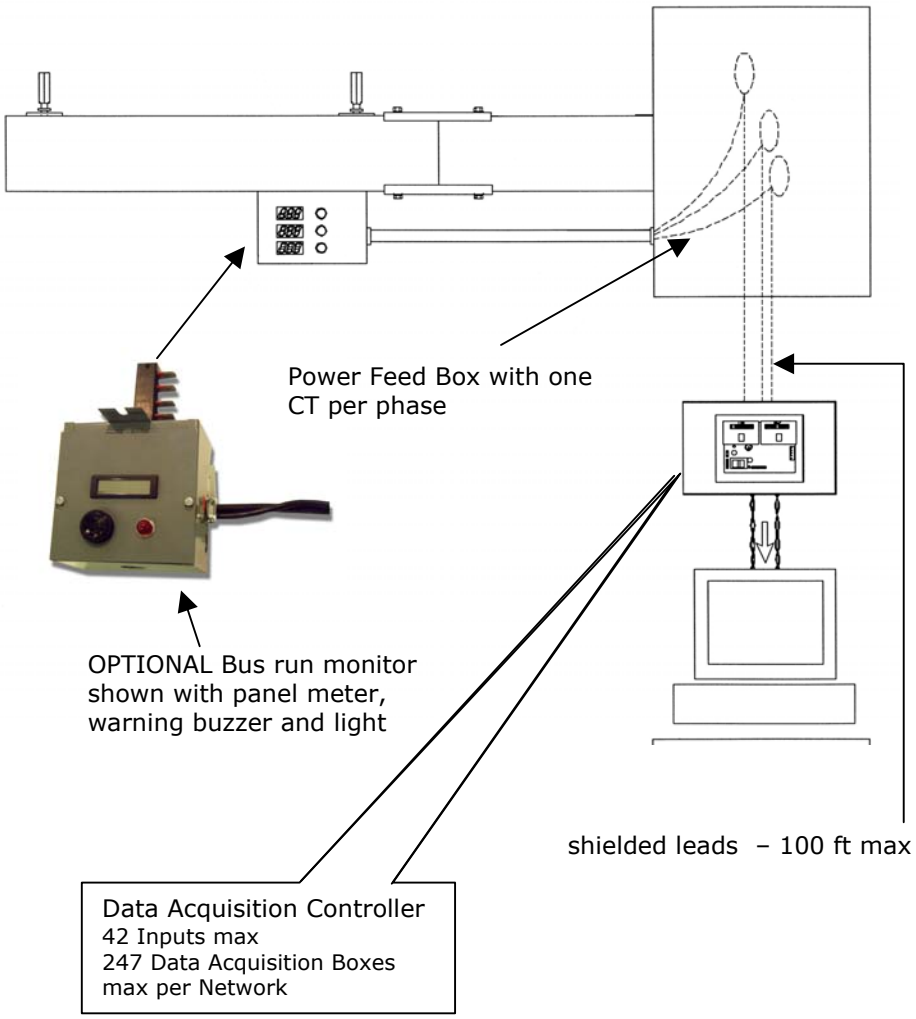
For remote monitoring the loading of a given run of STARLINE Track Busway. The Current Monitoring System (CMS) is a distributed data acquisition system that enables monitoring and reading, in amperes, of current draw for any given power feed unit. Each phase of a power feed unit may be monitored independently. The OPTIONAL Bus Run Monitor plugs in directly into the Busway section adjacent to the power feed.

CURRENT TRANSFORMERS

Split-core current transformers (CT's) can be either installed in the factory or field installed, one for each phase. Each CT current-sensing lead (100 ft max.) is routed to the Data Acquisition Controller (DAU). The DAU converts waveforms to a digital format that is transmitted serially to a customer provided host processor via Modbus RS-485 protocol. Up to 42 circuits can be monitored by any single DAU and up to 247 DAU's can be used in any single network or 10,347 individual circuits.

HOST PROCESSOR

The standard CMS is capable of communicating to a Host Processor via the Modbus protocol. Please consult factory for other protocols. The Host Processor is responsible for the application level functions of the system. Typical of the Host Processors are the DataTrax and ALC monitoring systems.



BASIC PART NUMBER

PFCM(XX) –(Configuration)-4

- **No. of system poles**
- **System Size (60, 100, 225 Amp)**
- **Power Feed Current Monitor**

Configuration:

- **-1M One selectable meter**
- **-3M Three meters, one for each phase**
- **-1M3A One selectable meter, three alarms**
- **-3M3A Three meters, three alarms**
- **-3R Remote**

RETURN TO MAIN MENU

Previous Page

Layout

STARLINE TRACK BUSWAY

SYSTEM SELECTION

This Section contains information regarding layout tips, important component relationship, polarity concerns and a sample takeoff for each system size. You will find Grid Layout in the Compact 40, 50, 60 Amp Section.

Compact 40, 50 & 60 Amp Systems (B40, B50, B60C)

Standard 60 & Compact 100 Amp Systems (B60 & B100C)

Standard 100 Amp (B100)

225 Amp, 100Amp 2X Neutral, Iso Grd (B225, B100N, B100NG)

RETURN TO MAIN MENU

Compact 40, 50 60 Amp

STARLINE TRACK BUSWAY

LAYOUT SELECTION

Layout Tips

Sample Take-Off

Grid Layout

RETURN TO MAIN MENU

Return to SYSTEM SELECTION

40, 50 & 60 Amp Compact

STARLINE TRACK BUSWAY

GENERAL LAYOUT TIPS

- Try to keep all runs as straight as possible as tees, elbows and crosses are added cost. With grid or any other bi-directional applications, there is a choice of two-plane with each direction on a separate plane or using Cross Sections if single-plane is required. Single-plane applications can provide power in both directions as well as parallel runs. Please refer to GRID LAYOUT for more detail.

- Standard Busway lengths are available in 20, 10 and 5-foot increments. Although the factory can cut individual STARLINE Track Busway sections to any length under 20 feet, it is highly recommend to keep all layout runs in increments of 5 feet. This recommendation is based on our experience with economics and simplifying job site installation. If housing sections are cut to 3, 4, 6ft, etc it can become cumbersome at the job site to determine which length goes with which run. By staying with 5-foot increments, this condition is minimized.

- Determine location of power feeds based on relation to power source, existing feeders and voltage drop concerns for longer runs.

LENGTH OF BUSWAY FOR A ONE VOLT DROP IN LINE TO LINE VOLTAGE

SYSTEM DESIGNATION	DISTRIBUTED LOAD	VOLTAGE DROP @ 0.8 PF Single Phase	VOLTAGE DROP @ 0.8 PF Three Phase
B40	40 Amps	45 feet	32 feet
B50	50 Amps	36 feet	26 feet
B60C	60 Amps	46 feet	24 feet

- There is no need to be concerned with the specific detail and total count of support hardware, connectors and end caps as your local STARLINE Track Busway Applications Engineer will assist during the quotation process. Refer to SPECIFICATIONS for the suggested STARLINE specification form.

- Understand component relationship before specifying or ordering specific Tee or Elbow Sections. Refer to Component Relationship for details.

RETURN TO MAIN MENU

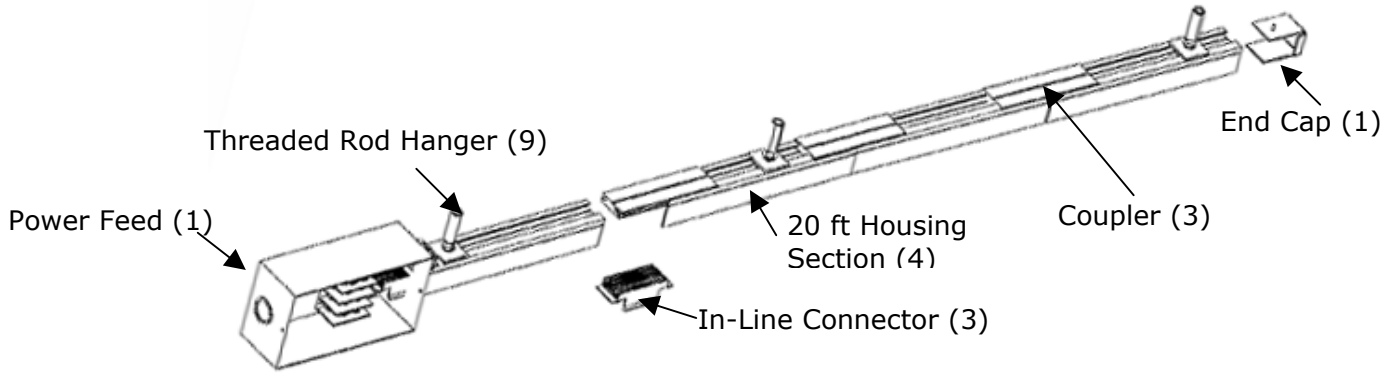
Return to SYSTEM SELECTION

Compact 40/50/60 Amp

STARLINE TRACK BUSWAY

SAMPLE TAKE-OFF

Description:
Straight run, 50 Amp system, 80 feet long, 4-pole with End Feed and supported by 3/8" threaded rod.



BILL OF MATERIAL:

QTY	PART NO.	DESCRIPTION
4	B60-20-4	Housing Section, 20 feet, 4-Pole
3	BC-4	In-Line Connector, 4-Pole
3	HC-2	Housing Coupler, plate type
1	EC60	End Cap
9	RHB-3	3/8" Threaded Rod Hanger
1	EPF60-4	End Power Feed, 4-Pole

RETURN TO MAIN MENU

Return to SYSTEM SELECTION

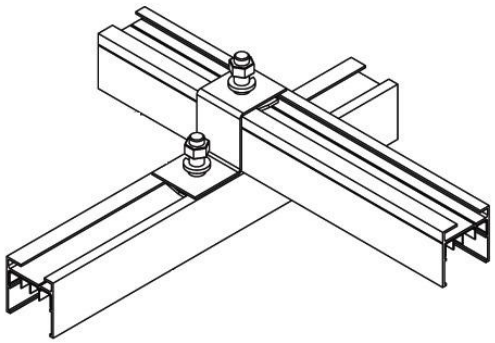
Compact 40/50/60 Amp

STARLINE TRACK BUSWAY

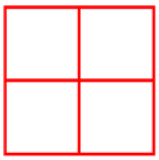
GRID LAYOUT

TWO PLANE (OVER-UNDER)
The most economical method for providing single, two or three phase power in both directions. Use simple straight runs with power feeds from either end.

Two Plane



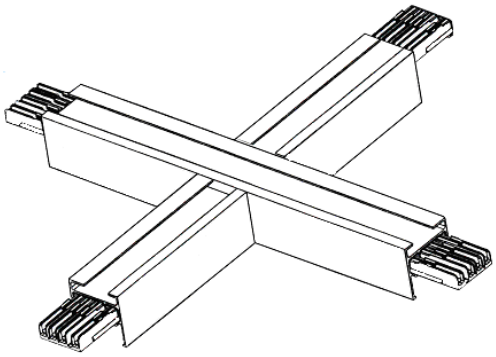
Electrical Path



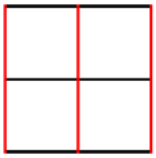
SINGLE PLANE (Open Ceiling)
Can provide single, two-phase or three-phase power on the same plane over the enrtire grid layout (in both directions) or in one direction only. Ideal for isolating assigned grid sections.

One Plane- One Direction

One Plane- Two Direction



Electrical Path



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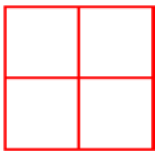
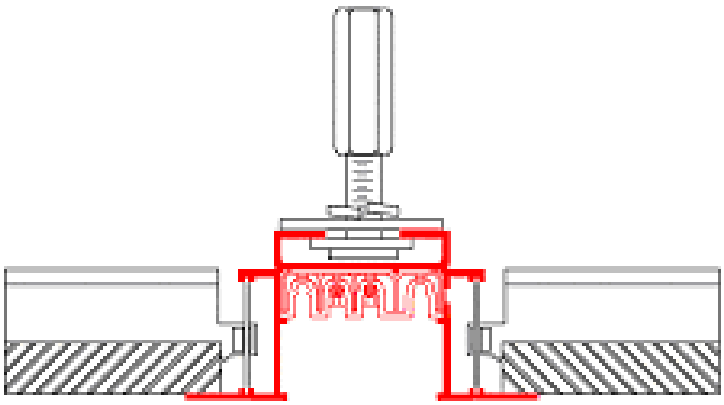


SINGLE PLANE (Drop Ceiling)
T-Bar ceiling extrusion is designed to replace the main runner of T-Bar ceilings. Extrusion allows for hardware, joining hardware and t-bar clips and accept cross-t's of the acoustical tile system. Use in SINGLE PLANE applications by substituting the standard B40, B50 or B60C housing with the designation "R" as in B40R. All other components remain the same.



Grid Connectors

RETURN TO MAIN MENU

Return to SYSTEM SELECTION

40, 50 & 60 Amp Compact

STARLINE TRACK BUSWAY

GRID CONNECTORS

IT IS HIGHLY RECOMMENDED THAT YOU REQUEST THE ASSISTANCE OF YOUR LOCAL STARLINE APPLICATIONS SPECIALIST TO ASSIST IN GRID LAYOUT. FOR A MODEST FEE, FINAL LAYOUT AND BILLS OF MATERIAL CAN BE PROVIDED WITH THE ASSISTANCE OF OUR ENGINEERING DEPARTMENT. SELECTION OF THE PROPER GRID CONNECTORS IS CRITICAL AS ALL SECTIONS OF STARLINE TRACK BUSWAY ARE POLARIZED TO PREVENT PHASE MISMATCH.

Catalog Number Sequence for Elbow Sections used in Grid Layouts

(XX)(XX)-(X)- (XX)

Direction
EL = External Left
ER = External Right
IL = Internal Left
ER = External Right
IH = Internal Horizontal (Elbows)
EH = External Horizontal (Elbows)

No of Poles (0, 2 or 4)

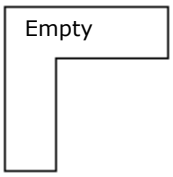
System Size (40, 50 or 60 Amp)

Component (Tee, Elbow or Cross)

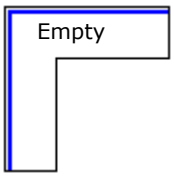
Tee Sections

Cross Sections

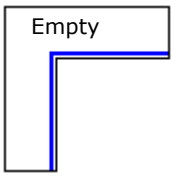
ELBOWS **Electrical Path in RED** , **Polarizing Strip in BLUE**



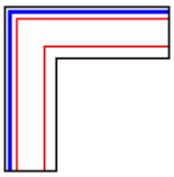
EL50-0
(used for ALL SYSTEMS)



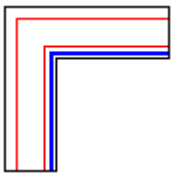
EL50-0-EH



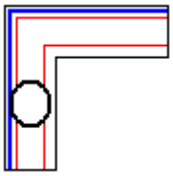
EL50-0-IH



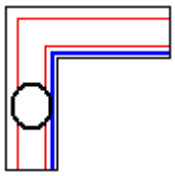
EL(XX)-(X)-EH



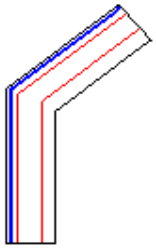
EL(XX)-(X)-IH



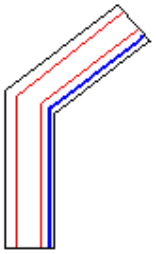
EL(XX)-(X)CF-EH



EL(XX)-(X)CF-IH



EL(XX)-(X)-EH-45



EL(XX)-(X)-IH-45

RETURN TO MAIN MENU

Return to GRID LAYOUT

Return to SYSTEM SELECTION

40, 50 & 60 Amp Compact

STARLINE TRACK BUSWAY

GRID CONNECTORS

IT IS HIGHLY RECOMMENDED THAT YOU REQUEST THE ASSISTANCE OF YOUR LOCAL STARLINE APPLICATIONS SPECIALIST TO ASSIST IN GRID LAYOUT. FOR A MODEST FEE, FINAL LAYOUT AND BILLS OF MATERIAL CAN BE PROVIDED WITH THE ASSISTANCE OF OUR ENGINEERING DEPARTMENT. SELECTION OF THE PROPER GRID CONNECTORS IS CRITICAL AS ALL SECTIONS OF STARLINE TRACK BUSWAY ARE POLARIZED TO PREVENT PHASE MISMATCH.

Catalog Number Sequence for Tee Sections used in Grid Layouts

(XX)(XX)-(X)- (XX)

Direction
EL = External Left
ER = External Right
IL = Internal Left
ER = External Right
IH = Internal Horizontal (Elbows)
EH = External Horizontal (Elbows)

No of Poles (0, 2 or 4)

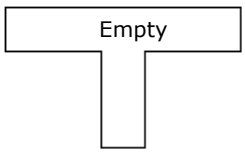
System Size (40, 50 or 60 Amp)

Component (Tee, Elbow or Cross)

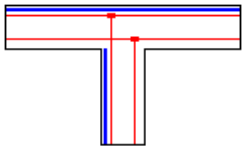
Elbow Sections

Cross Sections

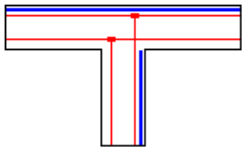
TEE's Electrical Path in RED , Polarizing Strip in BLUE



BT50-0
Used for ALL SIZES



BT(XX)-(X)-EL



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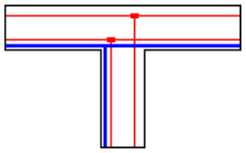
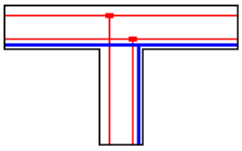


BT(XX)-(X)-IL



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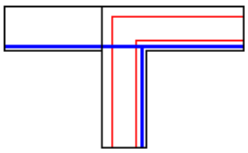
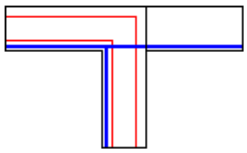
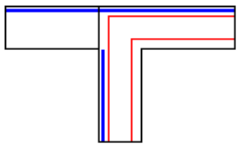


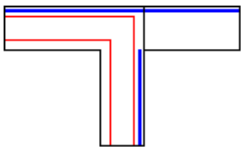
BT(XX)-(X)-IH/RH



BT(XX)-(X)-IH/LH



BT(XX)-(X)-EH/RH



BT(XX)-(X)-EH/LH

RETURN TO MAIN MENU

Return to GRID LAYOUT

Return to SYSTEM SELECTION

40, 50 & 60 Amp Compact

STARLINE TRACK BUSWAY

GRID CONNECTORS

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Catalog Number Sequence for Cross Sections used in Grid Layouts

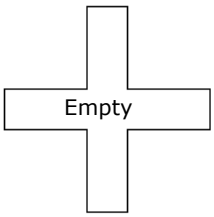
(XX)(XX)-(X)- (XX)

- **Direction**
  - **EL = External Left**
  - **ER = External Right**
  - **IL = Internal Left**
  - **ER = External Right**
  - **IH = Internal Horizontal (Elbows)**
  - **EH = External Horizontal (Elbows)**
- **No of Poles (0, 2 or 4)**
- **System Size (40, 50 or 60 Amp)**
- **Component (Tee, Elbow or Cross)**

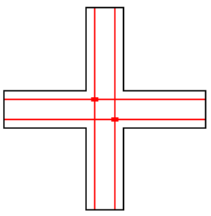
Elbow Sections

Tee Sections

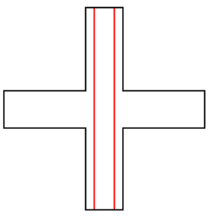
ELBOWS **Electrical Path in RED** , **Polarizing Strip in BLUE**



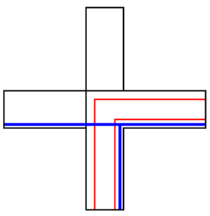
X50-0
(used for ALL SYSTEMS)



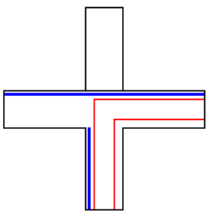
X(XX)-(X)



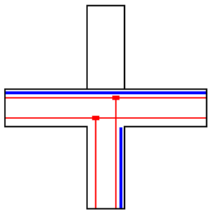
X(XX)-(X)-STR



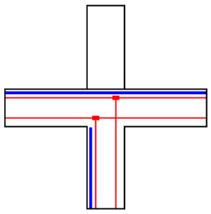
X(XX)-(X)-IH



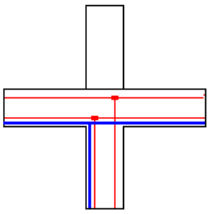
X(XX)-(X)-EH



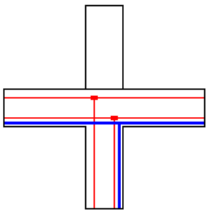
X(XX)-(X)-ER



X(XX)-(X)-IH



X(XX)-(X)-IL



X(XX)-(X)-IR

RETURN TO MAIN MENU

Return to GRID LAYOUT

Return to SYSTEM SELECTION

40, 50 & 60 Amp Compact

STARLINE TRACK BUSWAY

GRID LAYOUT

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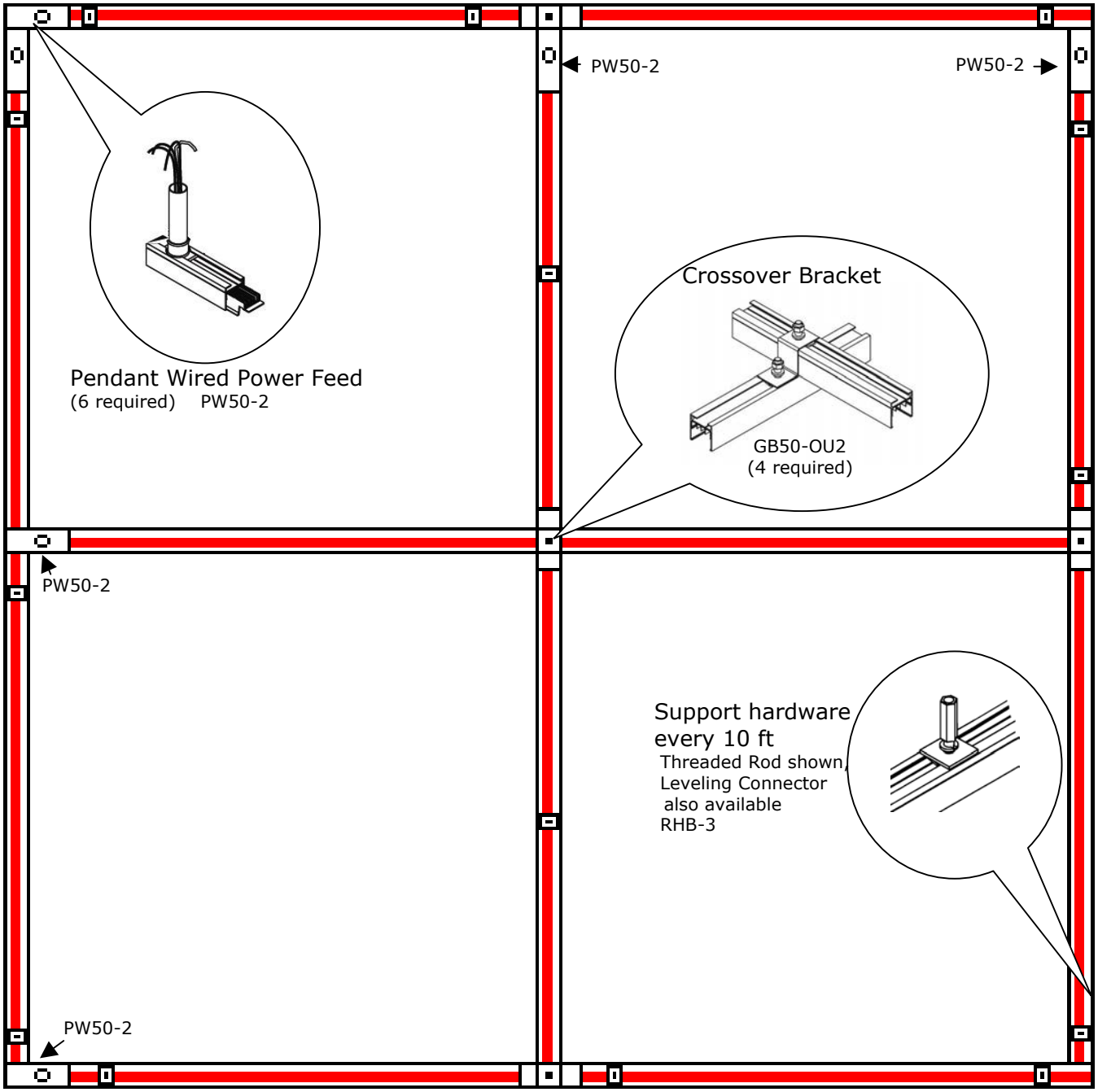
TWO PLANE EXAMPLE **Electrical path in RED in both directions**



RETURN TO MAIN MENU

Return to SYSTEM SELECTION

40, 50 & 60 Amp Compact

STARLINE TRACK BUSWAY

GRID LAYOUT

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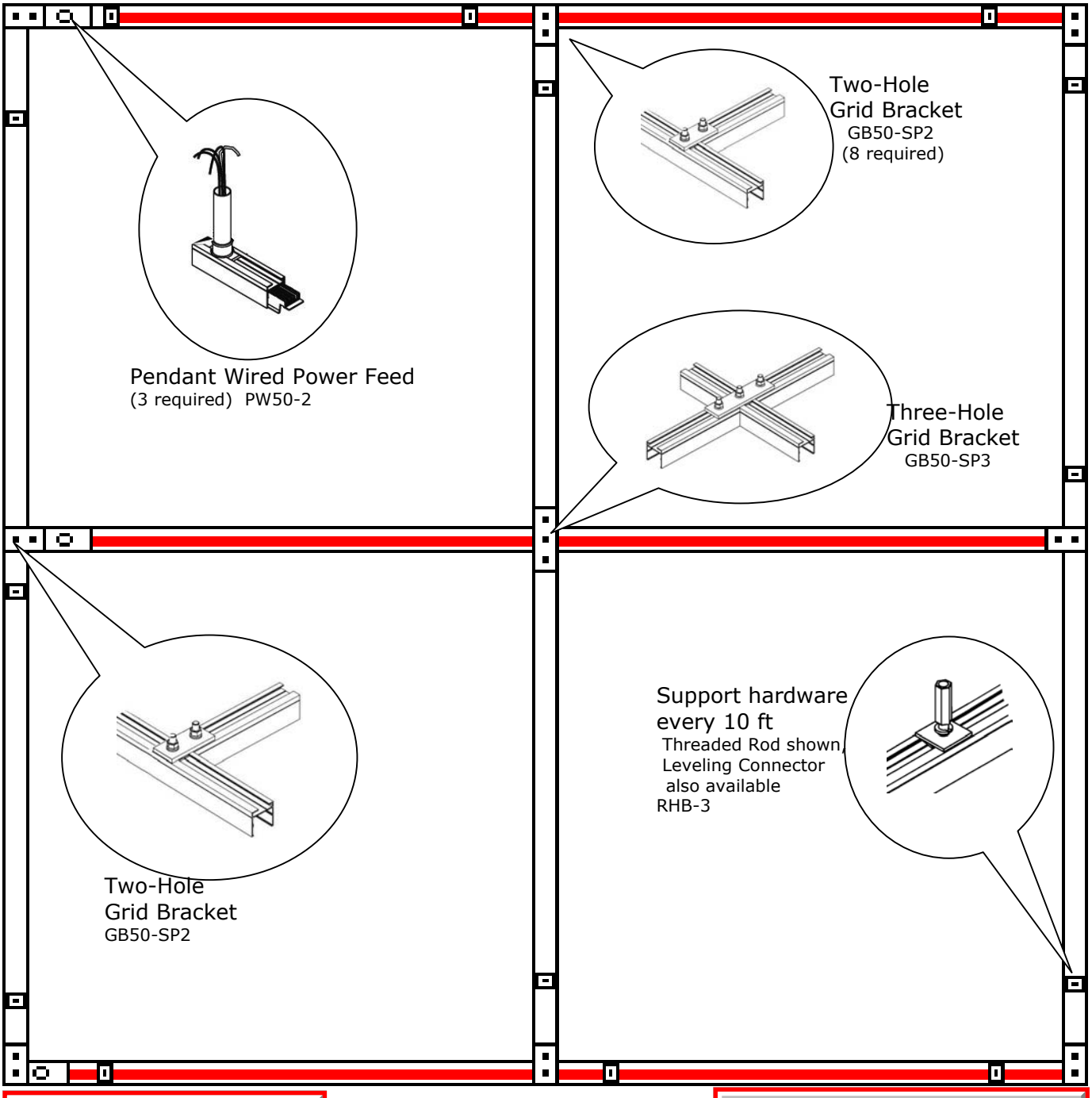
ONE PLANE EXAMPLE **Electrical path in RED in parallel directions**



RETURN TO MAIN MENU

Return to SYSTEM SELECTION

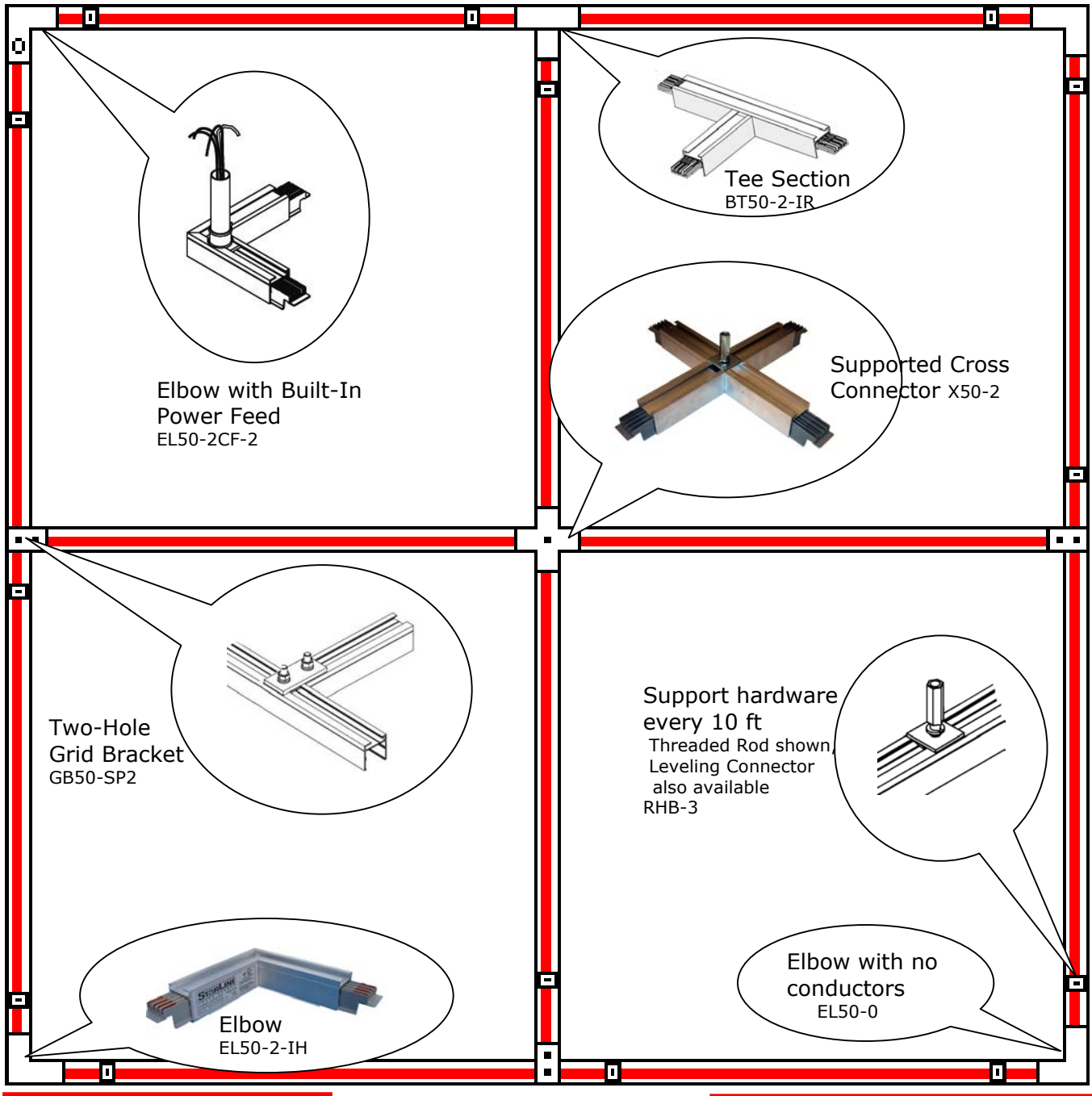
40, 50 & 60 Amp Compact

STARLINE TRACK BUSWAY

GRID LAYOUT

IT IS HIGHLY RECOMMENDED THAT YOU REQUEST THE ASSISTANCE OF YOUR LOCAL STARLINE APPLICATIONS SPECIALIST TO ASSIST IN GRID LAYOUT. FOR A MODEST FEE, FINAL LAYOUT AND BILLS OF MATERIAL CAN BE PROVIDED WITH THE ASSISTANCE OF OUR ENGINEERING DEPARTMENT.

ONE PLANE EXAMPLE **Electrical path in RED in both directions**



RETURN TO MAIN MENU

Return to SYSTEM SELECTION

60 & 100 Amp Compact

STARLINE TRACK BUSWAY

LAYOUT SELECTION

Component Relationship

General Layout Tips

Polarity Concerns

Sample Take-Off

RETURN TO MAIN MENU

Return to SYSTEM SELECTION

60 & 100 Amp Compact

STARLINE TRACK BUSWAY

COMPONENT RELATIONSHIP

When ordering material it is important to understand the relationship between various components. Examples:

- Each housing section requires a connector and coupler. Determine the total number of housing sections (regardless of length) as this becomes the number of In-Line Connectors (BC) and Couplers (HC) that will be needed.
- Add one extra In-Line Connector (BC) and Coupler (HC) for each Tee Connector.
- No need to add extra Connectors and Couplers for Elbow Connectors, as they are already part of your housing count.
- If using an "EF" style Power Feed, order an In-Line Connector (BC) and Coupler (HC) for each Power Feed.
- General support hardware rule to follow:

$$\frac{\text{Total System Length}}{10} + 0.10\ (10\%) = \text{Support Hardware Qty}$$

10 equal 10 ft spacing and 10% extra is recommended for job site changes.

- Total Power Feeds and End Caps can be determined by counting the total number of unconnected runs.
- Before specifying or ordering elbow or tee connectors, it is important to understand polarity and the relationship to direction of outlets. Please refer to POLARITY CONCERNS for more detail.

RETURN TO MAIN MENU | Return to LAYOUT SELECTION | Return to SYSTEM SELECTION

60 & 100 Amp Compact

STARLINE TRACK BUSWAY

GENERAL LAYOUT TIPS

- Try to keep all runs as straight as possible as tees and elbows are added cost.
- Standard Busway lengths are available in 20, 10 and 5-foot increments. Although the factory can cut individual STARLINE Track Busway sections to any length under 20 feet, it is highly recommend to keep all layout runs in increments of 5 feet. This recommendation is based on our experience with economics and simplifying job site installation. If housing sections are cut to 3, 4, 6ft, etc it can become cumbersome at the job site to determine which length goes with which run. By staying with 5-foot increments, this condition is minimized.
- Determine location of power feeds based on relation to power source, existing feeders and voltage drop concerns for longer runs.

LENGTH OF BUSWAY FOR A ONE VOLT DROP IN LINE TO LINE VOLTAGE

SYSTEM DESIGNATION	DISTRIBUTED LOAD	VOLTAGE DROP @ 0.8 PF Single Phase	VOLTAGE DROP @ 0.8 PF Three Phase
B60 (standard)	60 Amps	40 FT	45 FT
B100C (compact)			

- There is no need to be concerned with the specific detail and total count of support hardware, connectors and end caps as your local STARLINE Track Busway Applications Engineer will assist during the quotation process. Refer to SPECIFICATIONS for both the suggested short and long form STARLINE specifications.
- Printed Installation drawings are supplied with each system shipment. CAD files of these drawings are also available by contacting your local STARLINE Applications Engineer.

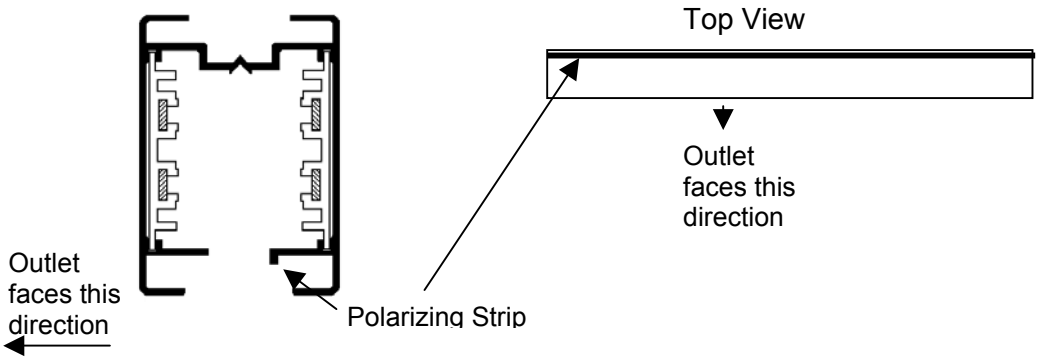
RETURN TO MAIN MENU | Return to LAYOUT SELECTION | Return to SYSTEM SELECTION

60 & 100 Amp Compact

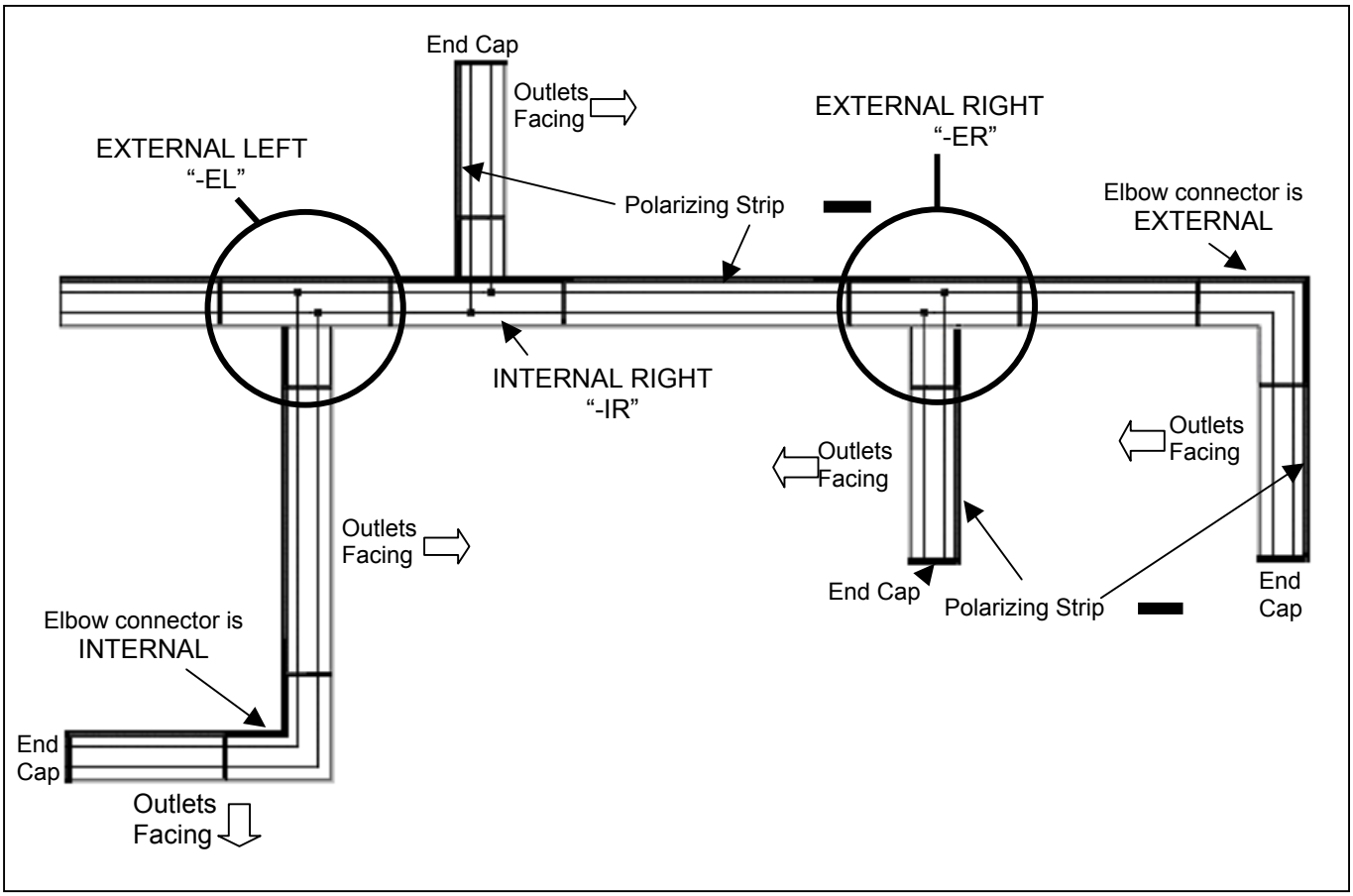
STARLINE TRACK BUSWAY

POLARITY CONCERNS

STARLINE utilizes a unique polarizing method to prevent mismatched components from being inadvertently connected to each other. The system is designed to prevent cross phasing during installation. It is particularly important to understand this design concept prior to ordering and/or installing some components. For example, if the face direction of a STARLINE plug-in unit is important in your installation consider that they will always face away from the polarizing strip.



Tee's and Elbow Connectors are specified according to desired polarity



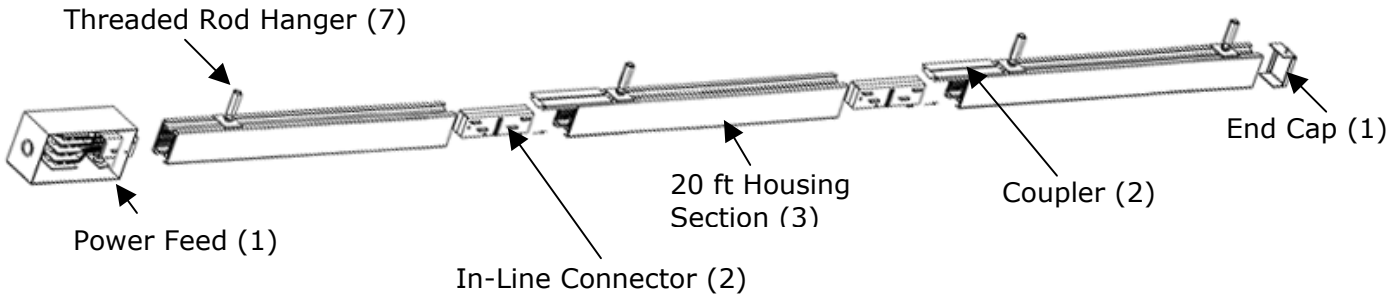
RETURN TO MAIN MENU | Return to LAYOUT SELECTION | Return to SYSTEM SELECTION

Standard 60 Amp (B60)

STARLINE TRACK BUSWAY

SAMPLE TAKE-OFF

Description:
Straight run, 60 feet long, 4-pole with End Feed and supported by 3/8" threaded rod.



BILL OF MATERIAL:

QTY	PART NO.	DESCRIPTION
3	B60-20-4	Housing Section, 20 feet, 4-Pole
2	BC-4	In-Line Connector, 4-Pole
2	HC-2	Housing Coupler, plate type
1	EC60	End Cap
7	RHB-3	3/8" Threaded Rod Hanger
1	EPF60-4	End Power Feed, 4-Pole

RETURN TO MAIN MENU | Return to LAYOUT SELECTION | Return to SYSTEM SELECTION

Standard 100Amp

STARLINE TRACK BUSWAY

LAYOUT SELECTION

Component Relationship

General Layout Tips

Polarity Concerns

Sample Take-Off

RETURN TO MAIN MENU

Return to SYSTEM SELECTION

Standard 100 Amp

STARLINE TRACK BUSWAY

COMPONENT RELATIONSHIP

When ordering material it is important to understand the relationship between various components. Examples:

- Each housing section requires a coupler set. Determine the total number of housing sections (regardless of length) as this becomes the number of Couplers (BHC) that will be needed. Part No BHC-1 contains a set (two).
- Add one extra Coupler set(BHC-1) for each Tee Section.
- No need to add extra Couplers for Elbow Sections, as they are already part of your housing count.
- If this is your first installation, you will need to order Installation Tool B100IT.
- General support hardware rule to follow:

$$\frac{\text{Total System Length}}{10} + 0.10\ (10\%) = \text{Support Hardware Qty}$$

10 equal 10 ft spacing and 10% extra is recommended for job site changes.

- Total Power Feeds and End Caps can be determined by counting the total number of unconnected runs.
- Before specifying or ordering elbow or tee sections, it is important to understand polarity and the relationship to direction of outlets. Please refer to POLARITY CONCERNS for more detail.

RETURN TO MAIN MENU | Return to LAYOUT SELECTION | Return to SYSTEM SELECTION

100 & 225 Amp Systems

STARLINE TRACK BUSWAY

GENERAL LAYOUT TIPS

- Try to keep all runs as straight as possible as tees and elbows are added cost.
- Standard Busway lengths are available in 20, 10 and 5-foot increments. Although the factory can cut individual STARLINE Track Busway sections to any length under 20 feet, it is highly recommend to keep all layout runs in increments of 5 feet. This recommendation is based on our experience with economics and simplifying job site installation. If housing sections are cut to 3, 4, 6ft, etc it can become cumbersome at the job site to determine which length goes with which run. By staying with 5-foot increments, this condition is minimized.
- Determine location of power feeds based on relation to power source, existing feeders and voltage drop concerns for longer runs.

LENGTH OF BUSWAY FOR A ONE VOLT DROP IN LINE TO LINE VOLTAGE

SYSTEM DESIGNATION	DISTRIBUTED LOAD	VOLTAGE DROP @ 0.8 PF Single Phase	VOLTAGE DROP @ 0.8 PF Three Phase
B100 (all systems)	100 Amps	53 FT	62 FT
B160 (all systems)	160 Amps	59 FT	69 FT
B225 (all systems)	225 Amp	42 FT	49 FT

- There is no need to be concerned with the specific detail and total count of support hardware, connectors and end caps as your local STARLINE Track Busway Applications Engineer will assist during the quotation process. Refer to SPECIFICATIONS for the suggested STARLINE specifications.
- Understand component relationship before specifying or ordering specific Tee or Elbow Sections. Refer to Component Relationship for details.

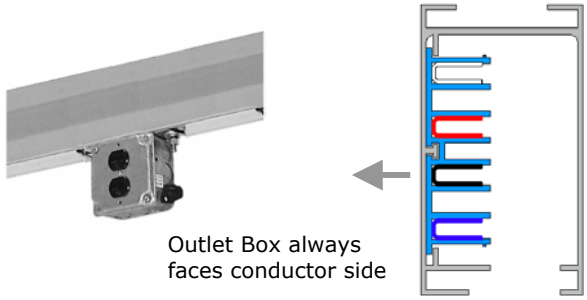
RETURN TO MAIN MENU | Return to LAYOUT SELECTION | Return to SYSTEM SELECTION

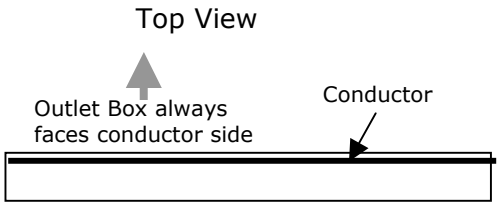
Standard 100 Amp

STARLINE TRACK BUSWAY

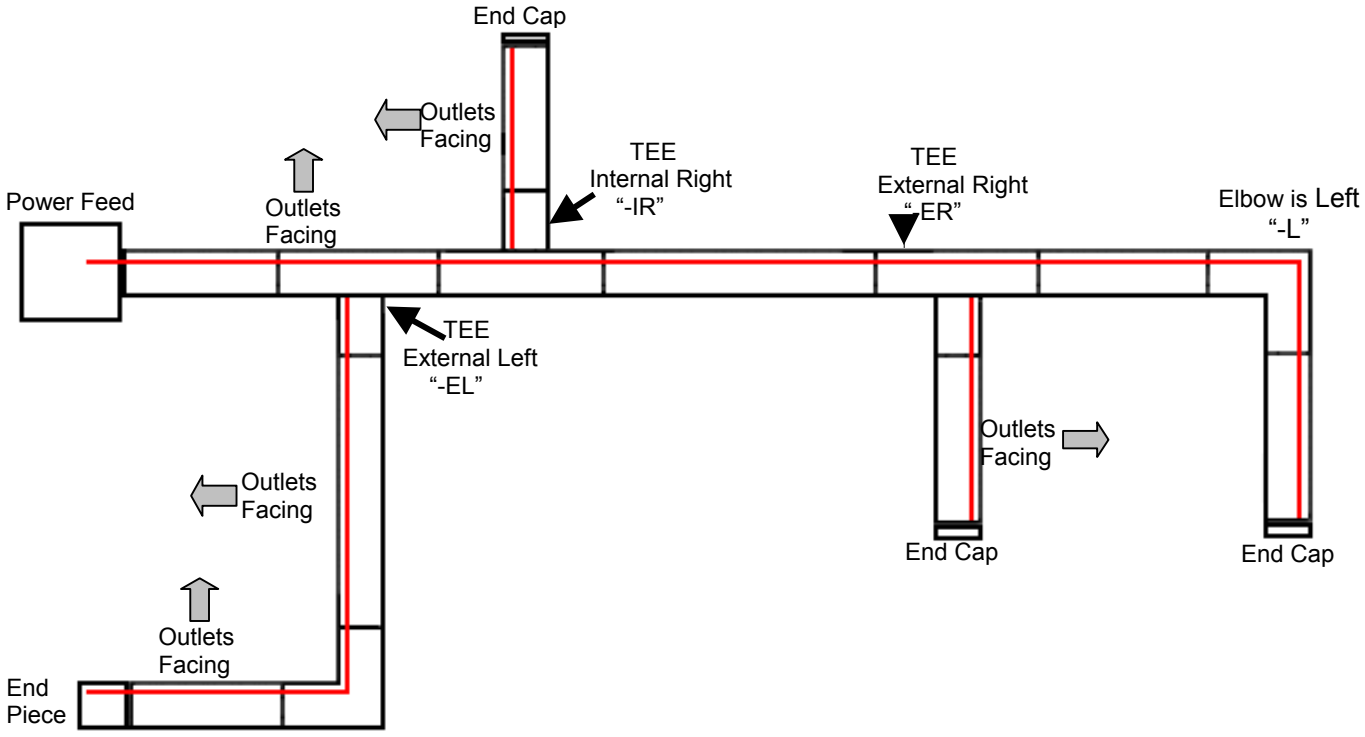
POLARITY CONCERNS

STARLINE utilizes a unique polarizing method to prevent mismatched components from being inadvertently connected to each other. The system is designed to prevent cross phasing during installation. It is particularly important to understand this design concept prior to ordering and/or installing some components. For example, if the face direction of a STARLINE plug-in unit is important in your installation consider that they will always face the conductor side.





Tee's and Elbow Sections are specified according to desired polarity

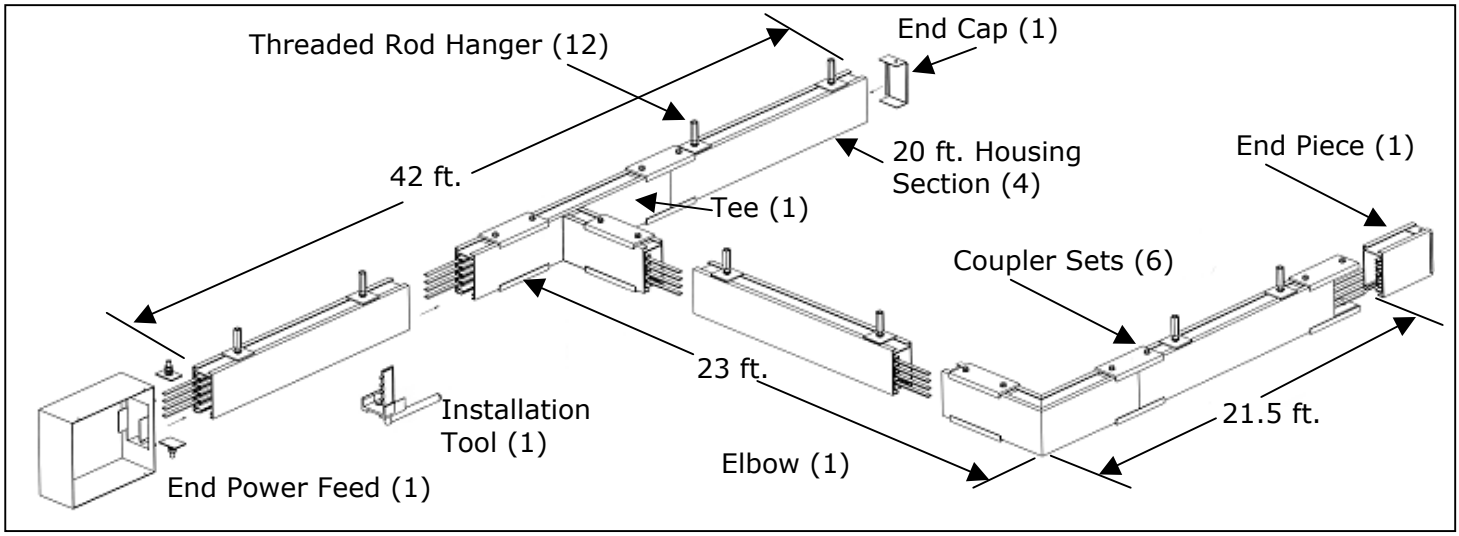


RETURN TO MAIN MENU | Return to LAYOUT SELECTION | Return to SYSTEM SELECTION

Standard 100 Amp (B100)

STARLINE TRACK BUSWAY

SAMPLE TAKE-OFF



BILL OF MATERIAL:

QTY	PART NO.	DESCRIPTION
4	B100-4PG-20	Housing Section, 20 feet, 4-Pole
2	EP-1	End Piece
2	BHC-1	Housing Coupler (pair)
1	EC-1	End Cap
12	RHB-3	3/8” Threaded Rod Hanger
1	EF100-4	End Power Feed, 4-Pole
1	BT4-EL	Tee, External Left (refer to Polarity)
1	EL4-R	Elbow, Right (refer to Polarity)
1	B100IT	Installation Tool

RETURN TO MAIN MENU
Return to LAYOUT SELECTION
Return to SYSTEM SELECTION

B100N,B100NG, B160 & B225 Systems

STARLINE TRACK BUSWAY

LAYOUT SELECTION

Component Relationship

General Layout Tips

Polarity Concerns

Sample Take-Off

RETURN TO MAIN MENU

Return to SYSTEM SELECTION

B225, B160, B100N, & B100NG Systems

STARLINE TRACK BUSWAY

COMPONENT RELATIONSHIP

When ordering material it is important to understand the relationship between various components. Examples:

- ALL COMPONENTS except Housing, Tee, Elbow Sections and Power Feeds are the same and are interchangeable for B100N (double neutral), B160 and B225 Amp Systems. Substitute either "100N" or "160" for "225" for all Housing, Tee, Elbow Sections and Power Feed units.
- Each housing section requires a coupler set. Determine the total number of housing sections (regardless of length) as this becomes the number of Couplers (BHC) that will be needed. Part No BHC-2 contains a set (two).
- Add one extra Coupler set(BHC-2) for each Tee Section.
- No need to add extra Couplers for Elbow Sections, as they are already part of your housing count.
- If this is your first installation for either B100N, B100NG, B160 or B225 systems, you will need to order Installation Tool B225IT.
- General support hardware rule to follow:

$$\frac{\text{Total System Length}}{10} + 0.10\ (10\%) = \text{Support Hardware Qty}$$

10 equal 10 ft spacing and 10% extra is recommended for job site changes.

- Total Power Feeds and End Caps can be determined by counting the total number of unconnected runs.
- Before specifying or ordering elbow or tee sections, it is important to understand polarity and the relationship to direction of outlets. Please refer to POLARITY CONCERNS for more detail.

RETURN TO MAIN MENU | Return to LAYOUT SELECTION | Return to SYSTEM SELECTION

B225, B160, B100N, & B100NG Systems

STARLINE TRACK BUSWAY

GENERAL LAYOUT TIPS

- ALL COMPONENTS except Housing, Tee, Elbow Sections and Power Feeds are the same and are interchangeable for B100N (double neutral), B160 and B225 Amp Systems. Substitute either "100N" or "160" for "225" for all Housing, Tee, Elbow Sections and Power Feed units.
- Try to keep all runs as straight as possible as tees and elbows are added cost.
- Standard Busway lengths are available in 20, 10 and 5-foot increments. Although the factory can cut individual STARLINE Track Busway sections to any length under 20 feet, it is highly recommend to keep all layout runs in increments of 5 feet. This recommendation is based on our experience with economics and simplifying job site installation. If housing sections are cut to 3, 4, 6ft, etc it can become cumbersome at the job site to determine which length goes with which run. By staying with 5-foot increments, this condition is minimized.
- Determine location of power feeds based on relation to power source, existing feeders and voltage drop concerns for longer runs.

LENGTH OF BUSWAY FOR A ONE VOLT DROP IN LINE TO LINE VOLTAGE

SYSTEM DESIGNATION	DISTRIBUTED LOAD	VOLTAGE DROP @ 0.8 PF Single Phase	VOLTAGE DROP @ 0.8 PF Three Phase
B100 (all systems)	100 Amps	53 FT	62 FT
B160 (all systems)	160 Amps	59 FT	69 FT
B225 (all systems)	225 Amp	42 FT	49 FT

- There is no need to be concerned with the specific detail and total count of support hardware, connectors and end caps as your local STARLINE Track Busway Applications Engineer will assist during the quotation process. Refer to SPECIFICATIONS for the suggested STARLINE specifications.
- Understand component relationship before specifying or ordering specific Tee or Elbow Sections. Refer to Component Relationship for details.

RETURN TO MAIN MENU | Return to LAYOUT SELECTION | Return to SYSTEM SELECTION

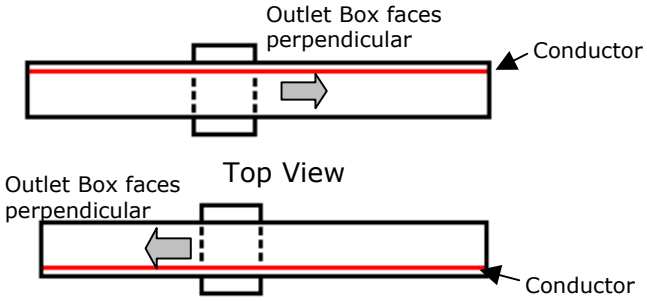
B225, B160, B100N, & B100NG Systems

STARLINE TRACK BUSWAY

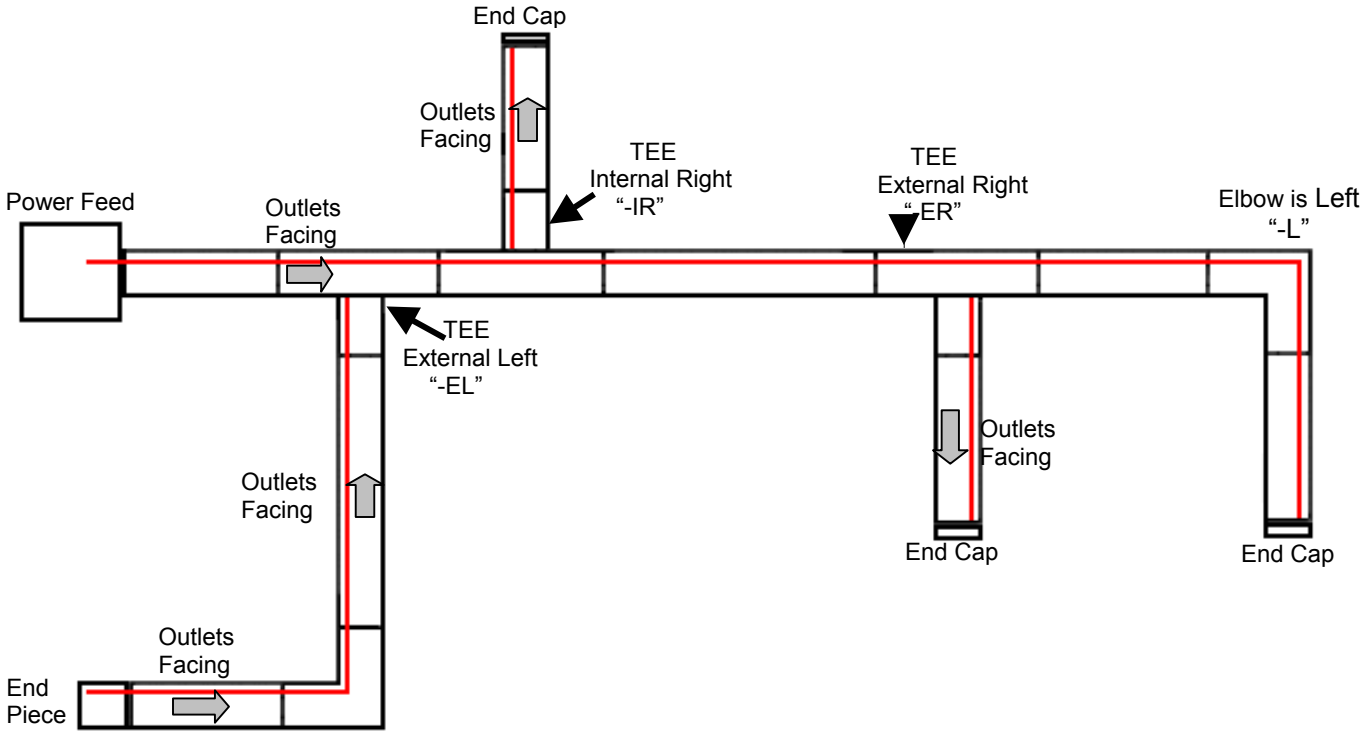
POLARITY CONCERNS

STARLINE utilizes a unique polarizing method to prevent mismatched components from being inadvertently connected to each other. The system is designed to prevent cross phasing during installation. It is particularly important to understand this design concept prior to ordering and/or installing some components. For example, if the face direction of a STARLINE plug-in unit is important in your installation consider that they will always face perpendicular to Busway run.

Outlet Box always faces perpendicular to the Busway



Tee's and Elbow Sections are specified according to desired polarity



ALL COMPONENTS except Housing, Tee, Elbow Sections and Power Feeds are the same and are interchangeable for B100N (double neutral), B160 and B225 Amp Systems. Substitute either "100N" or "160" for "225" for all Housing, Tee, Elbow Sections and Power Feed units.

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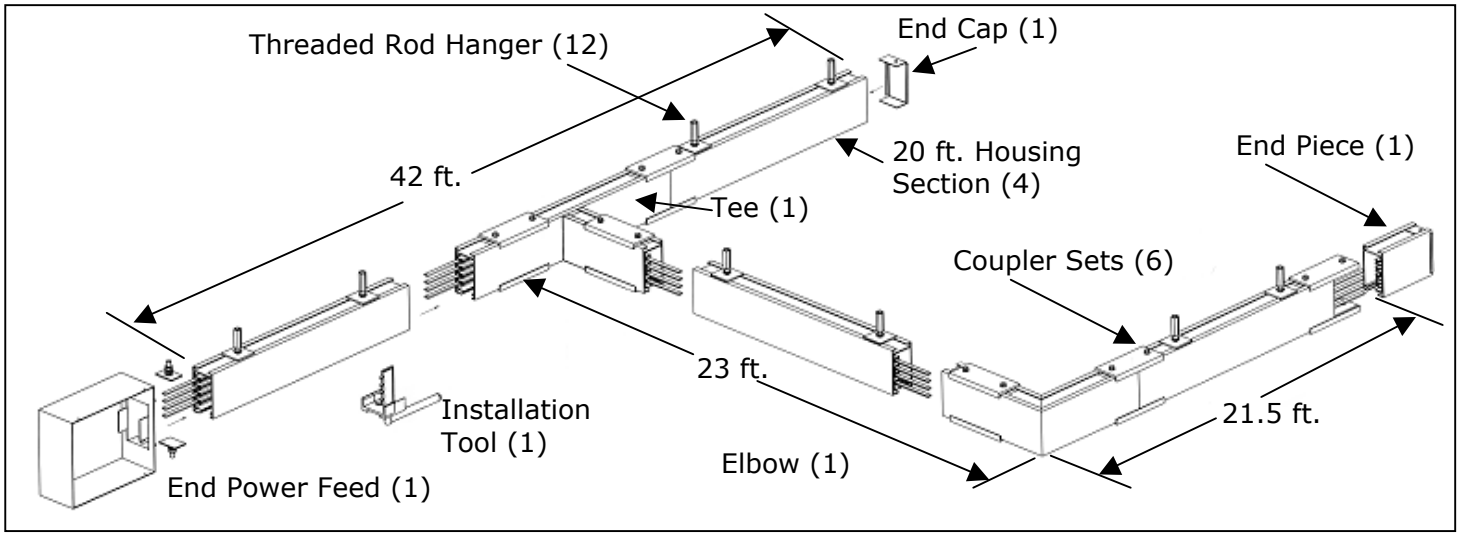
Standard 225 Amp (B225)

STARLINE TRACK BUSWAY

SAMPLE TAKE-OFF



BILL OF MATERIAL:

QTY	PART NO.	DESCRIPTION
4	B225-4PG-20	Housing Section, 20 feet, 4-Pole
2	EP-2	End Piece
2	BHC-2	Housing Coupler (pair)
1	EC-1	End Cap
12	RHB-3	3/8” Threaded Rod Hanger
1	EF225-4	End Power Feed, 4-Pole
1	T225-4-EL	Tee, External Left (refer to)
1	EL225-4-R	Elbow, Right (refer to)
1	B225IT	Installation Tool

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STARLINE TRACK BUSWAY

SELECTION

Clean Rooms

Direct Current (DC) Applications

Frequently Asked Questions

Plenums & Suspended Ceilings

Raised Access Floors (IT Rooms)

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Application Briefs

STARLINE TRACK BUSWAY

CLEAN ROOMS

AIRBORNE PARTICULATE CLEANLINESS CLASSES

The Statistically allowable number of particles per cubic foot of air according to Federal Standards 209E.Measured particle size in micrometers (M)

Class Name	0.1M	0.2M	0.3M	0.5M	5M
1(M 1.5)	35	7.5	3	1	N/A
10 (M 2.5)	350	75	30	10	N/A
100 (M 3.5)	N/A	750	300	100	N/A
1000 (M 4.5)	N/A	N/A	N/A	1,000	7
10000 (M 5.5)	N/A	N/A	N/A	10,000	70
100000 (M 6.5)	N/A	N/A	N/A	100,000	700

We have never done any formal clean room testing for applications in clean rooms, i.e. to see which class we would fall into. We know that some customers have installed STARLINE in clean rooms, probably in the Class 1000 or higher applications.

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Application Briefs

STARLINE TRACK BUSWAY

DC CURRENT

STARLINE Track Busway may be used in DC applications. This is becoming increasingly common with the advent of DC power distribution in data centers. DC circuits typically require (+) and (-) conductors. A single DC circuit may be accomplished with two-pole busway. Alternately, four-pole busway may be used to accomplish two, independent DC circuits. In two circuit DC applications, the ampere rating of the busway is derated as shown below. The ratings for DC applications are as follows:

STARLINE BUSWAY RATING – DC CURRENT Maximum Voltage: 600 Volts, DC

Single Circuit – Two-Pole			
System:	**B60**	**B100**	**B225**
Max Current DC:	***60 Amps***	***100 Amps***	***225 Amps***

Two Circuit – Four-Pole			
System:	**B60**	**B100**	**B225**
Max Current DC:	***50 Amps***	***90 Amps***	***200 Amps***

PLUG-IN UNITS

Circuit Breaker Plug-In Units normally rated for AC applications may be used in DC applications with the following ratings:

- 250VAC rated units are rated for 48VDC, 5,000AIC.
- 480VAC rated units, single pole are rated for 125VDC, 22,000 AIR maximum
- 480VAC rated units, two pole are rated for 250VDC, 22,000 AIR maximum

Fused Plug-In Units for DC applications require use of an appropriately rated fuse. Fuses are not typically included with STARLINE Fused Plug-In Units, and therefore selection of such a fuse is the responsibility of the customer. Fused outlet box units accept a class CC fuse. FD225 units accept a class J fuse. FD60 and FD100 units are not DC rated. The following fuses are listed by the manufacturer as having DC ratings. Consult manufacturers catalog for specific details.

- Bussmann LP-CC series. Class CC fuse, 20,000 AIR, 150 VDC, 30A maximum
- Bussmann LPJ_SP series: Class J fuse, 20,000 AIR, 300VDC
- Gould AJT series: Class J fuse, 100kAIR, 500 VDC.

VOLTAGE DROP

The length of busway for a one volt drop in the line to line voltage for a distributed load is:

- B60, 50 amp distributed load: 37 feet per volt
- B100, 90 amp distributed load: 53 feet per volt
- B225, 200 amp distributed load: 45 feet per volt

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STARLINE TRACK BUSWAY

FREQUENTLY ASKED QUESTIONS

1. **Can you have isolated ground?**

   Yes – On our 100A and 225A versions we can add a fifth copper bar rated at 50% of the ampacity of the
   other bars. (A 50% rated ground is an industry standard). The product types are B100NG and B225G.

   The 40, 50, 60, and 100C products do not have available an isolated ground.

2. **Is this product UL listed for use under a raised access floor?**

   There is not such UL standard for busway under raised access floor. However, the National Electric Code addresses this issue. A busway can only be used underfloor if there is an access panel at each place a tap off exists under the floor. And the access panel must be labeled to indicate that a tap was below it and labeled that no item should be placed on top of the panel.

   We have only done a few projects with busway used under raised floor. The typical configuration in a data center is overhead.

3. **How do you keep people from adding too many drops and overloading the circuit?**

   STARLINE Track Busway is no different from any other busway or panelboard. Anyone could mount 14 - 3 pole 100A circuit breakers in a 225A main panel if they wanted to. It is typical that the addition of a circuit to STARLINE is done by a qualified person who is familiar with the electrical system at the facility. They are expected to know the load on the bus through routine sampling over time.

   However, for those who want protection against this issue, we have developed a product called Bus Run Monitor. This product installs in the busway slot and includes 3 CTs that are installed in an end feed unit. Bus Run Monitor has an optional warning light, warning buzzer, or form C contacts to notify facility personnel of a current draw over the preset limit. The preset can be selected at 60-90% of the bus capacity.

   We believe this is a valid concern but in practice STARLINE Track Busway trips have been extremely rare.

4. **What is the torque on the connection of the drop boxes?**

   Measuring the exact torque on the connection is difficult at best. What we prefer to do is to test the temperature rise on the drop box stab. A poor connection is indicated by a high temperature at the connection point. In every case STARLINE was designed to provide excess copper surface area at every point of connection in the system. This includes the bus connectors and all of the drop box stabs. The tested results, as done by UL, is that all of our connection points have a lower temperature rise than the main copper busbars.

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5. **How do you identify Phase A, B, or C device on the power drop boxes?**

   Each drop box carries a round color code label either black (A phase), red (B phase), or blue (C phase). The color code is determined by the part number as ordered by the customer such as DRF60-AF which is a duplex receptacle fused for our 60 amp system with A phase having the fuse. If the customer has no preference, we typically ship 1/3 of the drop boxes wired to each individual phase.

6. **How do you know what phase you are plugged into, and how do you allocate the drops so they are balanced across all three phases?**

   Answer 5 addresses the first half of this question. The answer to the second half is the same as any power distribution system. The electrical designer does the balancing.

7. **Are the duplex outlets prewired to for phase A, B, or C?**

   Yes, by specifying the part number.

   However, in cases where the color code is not specifed via the part number, we will automatically divide the quantity in thirds and properly color code into red, blue and bvlack

   We can also supply units that are not phase specific. This way the end user can wire the phase required at his site to keep inventory levels as low as possible. It's up to the customer.

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Application Briefs

STARLINE TRACK BUSWAY

PLENUMS & SUSPENDED CEILINGS

Note: The suitability of any busway application is governed by the National Electric Code and ultimately interpreted by the local Electrical Inspector. The following information is our interpretation of the Code and does not imply any guarantee that the Inspector will concur. As of this writing, we have very limited experience in busway applications of this type and cannot confirm what might be the probable interpretation of the Inspector. It is the responsibility of the customer to ensure that their Inspector will allow busway to be used in a manner that the customer intends.

By definition, a Plenum is "a compartment or chamber to which one or more air ducts are connected and that forms part of the air distribution system" (NEC 1996). This definition is not intended to apply to space above a suspended ceiling used for environmental air, which is treated separately.

Article 300-22 treats the subject of wiring methods in Ducts, Plenums, and other air-handling spaces. This article does not permit the use of busway as a wiring method in a Plenum.

Article 300-22(c) treats the subject of wiring methods in other air-handling spaces. The space above a suspended ceiling may be such a space. It is possible that this space is used for handling environmental air (e.g. cold air return). If so, this Article permits the use of busway in this space so long as it is "totally enclosed nonventilated insulated busway having no provisions for plug-in connections". Our track busway meets this requirement when used with an aluminum closure strip. B60 busway systems should use the HC-2 style of housing coupler to allow the closure strip to totally enclose the access slot at the housing joints. The restriction here is on the use of plug-in units. It is subject to interpretation whether a plug-in unit with closure strip abutting both sides is an acceptable wiring method. We have at least one customer doing this, but do not have significant experience with this method.

Article 364-4 treats the subject of permitted uses of busways.

364-4(a) Use Permitted. Busways shall be installed only where they are located in the open and are visible.

Exception. Totally enclosed, nonventilating-type busways, installed so that the joints between sections and at fittings are accessible for maintenance purposes, shall be permitted to be installed behind panels where means of access are provided, and:

a. The space behind the access panels is not used for air-handling purposes; or
b. The space behind the access panels is used for environmental air, other than ducts and plenums, in which case there shall be no provisions for plug-in connections, and the conductors shall be insulated.

It is our interpretation of this Article in combination with **Article 300-22** that a suspended ceiling is a type of "access panel" construction. Therefore, a busway may be used above a drop ceiling if it is installed in accordance with Article 364. If this space is not being used for any air-handling purpose, plug-in fittings may be installed if done so in accordance with Article 364. As with air-handling spaces, an aluminum closure strip on the busway must be used; B60 systems should use the HC-2 style of housing coupler.

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Application Briefs

STARLINE TRACK BUSWAY

RAISED ACCESS FLOORS (IT Rooms)

Note: The suitability of any busway application is governed by the National Electric Code and ultimately interpreted by a local electrical inspector. The following information is an interpretation of the Code and does not imply any guarantee that a local inspector will concur. It is the responsibility of the system designer to ensure that the local electrical inspector will allow busway to be used in a manner that the customer intends.

Article 368 governs the use of busway.

Article 368-4 defines the permitted uses of busway.

a) Busway shall be permitted to be installed where they are located as follows:

(1) Located in the open and are visible, or
(2) Installed behind access panels, provided the busways are totally enclosed, of the non-ventilating-type construction, and installed so that the joints between sections and at fittings are accessable for maintenance purposes. Where installed behind access panels, means of access shall be provided, and the following conditions shall be met:
(a) The space behind the access panel shall not be used for air handling purposes, or
(b) Where the space behind the access panels is used for environmental air, other than ducts or plenums, there shall be no provisions for plug-in connections, and the conductors shall be insulated.

Article 645 – Information Technology Equipment

Article 645 covers the equipment, power-supply wiring, equpment interconnect wiring, and grounding of information technology equipment and systems, including terminal units, in an information technology equipment room.

This article spells out specific requirements such as:

a) A disconnect means for all electronic equipment.
b) A disconnect means for the HVAC equipment.
c) The control of these disconnect means shall be readily accessible at the principal exit doors.
d) A separate HVAC system from the rest of the building.

After review of both articles, it is the opinion of this writer that Starline Track Busway meets the intent of the National Electric Code when used in IT Equipment Rooms under raised floor as follows:

a) The tiles used in a raised floor meet the definition of "Access Panel".
b) Floor tiles used for access to busway plug-in units must not be obstructed by other equipment
c) Starline Track Busway, sizes B100 & B225, have a unique "maintenance free" joint design.

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d) When used with closure strip, Starline Track Busway is totally enclosed, non-ventilated busway.
e) The copper bus bars reside in a UL Tested "Finger Safe" insulator.
f) The IT equipment room will be occupied only by those personnel needed for the maintenance and functional operation of the installed information technology equipment.
g) The HVAC system in an IT equipment room must be separate from the rest of the building per 645-2 (b).
h) The disconnect means for the busway should not be beneath the raised floor and should be housed in an appropriate panelboard or switchboard.
i) The use of busway in IT Equipment Rooms greatly reduces the complexity of power wiring and has been shown to reduce circuit breaker trips during equipment changeovers.

IT Rooms are special applications that have many safeguards against fire. The use of busway enhances these safeguards by minimizing power cables underneath the floor; minimizing wiring errors, eliminating the need to remove unused whips, and minimizing time spent underfloor adding cables.

We welcome feedback and insights from anyone. Interested persons may contact Mark Butterfield at Universal Electric. 1-800-6378.

July 9, 2002

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Specifications

STARLINE TRACK BUSWAY

SYSTEM SELECTION

40, 50, 60 Amp Compact - B40, B50 B60C

Standard 60 Amp - B60

Standard 100 Amp - B100, B100N, B100NG

Standard 225 Amp - B225, B225G

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SECTION 16121 – BUSWAY SYSTEM B40, B50, B60C

1.01 SUMMARY

A. **This specification covers the electrical characteristics and general requirements for a track busway system, hereafter referred to as (Busway). The system shall be designed primarily for overhead distribution of electrical power. Supporting designated work areas and equipment. Once installed the Busway will provide a simple, versatile, fast, and economic means of distributing power. Loads fed from a variety of plug-in units can be easily added or removed without shutting power down to the busway.**

1.02 STANDARDS AND CERTIFICATION

A. **The BUSWAY shall be designed and manufactured to the follow standards:**

1. **Low Voltage Directive (73/23/EEC) including Amendment (93/68/EEC).**
2. **Low Voltage Switchgear and Controlgear Assemblies, Part 1: Type Tested and partially type tested Assemblies, IEC 60439-1: 1999.**
3. **Low Voltage Switchgear and Controlgear Assemblies, Part 2: Particular Requirements for Busbar Trunking systems (Busways), IEC 60439-2: 2000.**
4. **Underwriters Laboratories Standard, UL 857 – The common UL, CSA, and ANCE Standard for Busways that is derived from the fifth edition of CSA Standard C22.2 No. 27, the twelve edition of UL 857, and the second edition of NMX-J-148-1998-ANCE.**
5. **Underwriters Laboratories Standard, UL 857 – The common UL, CSA, and ANCE Standard for Busways that is derived from the fifth edition of CSA Standard C22.2 No. 27, the twelve edition of UL 857, and the second edition of NMX-J-148-1998-ANCE.**
6. **CUL Listing**
7. **National Electric Code (NEC) – Article 368 – Busways**
8. **NEMA AB1, Molded Case Circuit Breakers and Molded Case Switches**
9. **NEMA KS-1, Enclosed and Miscellaneous Distribution Equipment Switches (600VAC).**
10. **NFPA 70 – National Fire Protection Agency**

1.03 SYSTEM DESCRIPTION

A. **Electrical Requirement**

B40, B50 or B60C Busway – Manufactured by Universal Electric Corp.
3089 Washington Pike
Bridgeville, PA 15017
Phone # (412) 221-4440

Voltage:	**All track sections and fittings rated at 480Y/277 volts**
Frequency:	**60 Hz**
Ampacity:	**40A, 50A or 60A**
Neutral Ampacity:	**40A, 50A or 60A**
Conductors:	**Qty. 4 (Phase A,B,C and Neutral) option with 2 conductors**
Grounding:	**Aluminum Housing**

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B. Environmental

Indoor, Low Impedance System

Ambient Operating Temperature:	**40°C / 104°F**
	60°C / 140°F (0.8 Amp Rating Multiplier)

1.04 SUBMITTALS

A. **Submittals shall be in accordance with specified procedures. Submit shop drawing and product data for record purposes prior to shipment.**

B. **Indicate construction details, including dimensions, weights, clearances, major component layout, power details. Include breaker, fused plug-in and cable schedule (if applicable), including cable lengths and plug-in schedules.**

C. **Include connection diagram for external wiring, and details of conduit and wiring connections and terminations.**

D. **Indicate special receiving and handling procedures.**

E. **Provide electrical characteristics and connection requirements for the system and accessories.**

1.05 WARRANTY

A. **The Busway manufacturer shall guarantee the entire system against defective material and workmanship for a period of one (1) year from date of shipment.**

1.06 COMPONENTS

A. **Frame and Enclosure**

1. **Extruded Aluminum housing designed to be light weight and act as a 100% ground. Housings to be 5, 10, or 20 ft standard length. This housing should be properly extruded with slots to receive rod mount hangers to hang from a ceiling. This housing should be open on the bottom to accept plug-in units. This opening shall pass UL's hypothetical finger probe test.**

2. **All conductors shall be made of copper and sized to handle 100% of it's rating continuously with ambient temperatures below 40°C / 104°F. The conductors shall be electrically isolated form the housing.**

B. **Plug-in Units**

1. **Plug-in units shall be polarized to avoid incorrect installation.**
2. **Plug-in units shall use [{circuit breakers} {fuses}] for branch circuit protection.**
3. **Plug-in units shall have snap clips to secure units to the busway.**
4. **Plug-in units that include drop cords shall be manufactured with cord grips and receptacles as specified in the drawings.**

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5. **Internal Plug – low profile, mounted internally in housing, inserts into continuous slot and snaps into place. This hold unit in place, for usage on 2P or 4Pole Busway; 15 Amp internal plug for lighting; 15, or 30 Amp for power drop usage.**

1.07 INSTALLATION

A. **Busway Sections – The B40, B50 or B60C, 40A, 50A or 60 ampere runs will consist of lengths as shown on the drawings.**

B. **Hanging of the Busway – Using supplied 'Rod Mount Hangers', the RHB-3 busway will be hung from the ceiling using all-thread. The installing contractor shall be responsible for the connections on the ceiling end. The supplied Rod Mount Hangers will connect the busway to the all-thread. The maximum spacing is 10 ft on center for the hangers. The height of the busway shall be coordinated with the Architect.**

C. **Connecting Sections of Busway – At a junction of Busway sections, the installer will insert a Bus Connector (BC40-4,BC50-4 or BC60C-4) into the end of housing. Position next housing onto this connector and join (2) sections together using the housing coupler, HC40-2, HC50-2 or HC60C-2.**

D. **End of runs – end caps EC40, EC50 OR EC60C will be provided to install at the ends of each run.**

E. **Closure Strip – The closure strip can be cut and fitted to cover the bottom opening of the Busway housing to prevent dust and debris from gathering in the Busway (if applicable).**

F. **WHR40-2 - Weight Ring – used to support high bay fixtures; 50 lb maximum supporting weight can be suspended on housing. Powered or unpowered weight units and signage can be supported.**

G. **ACH-1 – Aircraft Cable Hanger Suspension – fit 1/16" cable, maximum support internal, 10 ft centers.**

H. **Supply as manufactured by Universal Electric Corporation; 3089 Washington Pike; Bridgeville, PA 15017; (800) 245-6378; (412) 221-4400; fax (412) 221-6828.**
No known equal.

END OF SECTION

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1.01 SUMMARY

A. This specification covers the electrical characteristics and general requirements for a track busway system, hereafter referred to as (Busway). The system shall be designed primarily for overhead distribution of electrical power. Supporting designated work areas and equipment. Once installed the Busway will provide a simple, versatile, fast, and economic means of distributing power. Loads fed from a variety of plug-in units can be easily added or removed without shutting power down to the busway.

1.02 STANDARDS AND CERTIFICATION

A. The BUSWAY shall be designed and manufactured to the follow standards:

1. Low Voltage Directive (73/23/EEC) including Amendment (93/68/EEC).
2. Low Voltage Switchgear and Controlgear Assemblies, Part 1: Type Tested and partially type tested Assemblies, IEC 60439-1: 1999.
3. Low Voltage Switchgear and Controlgear Assemblies, Part 2: Particular Requirements for Busbar Trunking systems (Busways), IEC 60439-2: 2000.
4. Underwriters Laboratories Standard, UL 857 – The common UL, CSA, and ANCE Standard for Busways that is derived from the fifth edition of CSA Standard C22.2 No. 27, the twelve edition of UL 857, and the second edition of NMX-J-148-1998-ANCE.
5. Underwriters Laboratories Standard, UL 857 – The common UL, CSA, and ANCE Standard for Busways that is derived from the fifth edition of CSA Standard C22.2 No. 27, the twelve edition of UL 857, and the second edition of NMX-J-148-1998-ANCE.
6. CUL Listing
7. National Electric Code (NEC) – Article 364 – Busways
8. NEMA AB1, Molded Case Circuit Breakers and Molded Case Switches
9. NEMA KS-1, Enclosed and Miscellaneous Distribution Equipment Switches (600VAC).
10. NFPA 70 – National Fire Protection Agency

1.03 SYSTEM DESCRIPTION

A. Electrical Requirement

B60 Busway – Manufactured by Universal Electric Corp.
3089 Washington Pike
Bridgeville, PA 15017
Phone # (412) 221-4440

Voltage:	120/208V, 300V or 600V
Frequency:	60 Hz
Ampacity:	60 A
Neutral Ampacity:	60 A
Conductors:	Qty. 4 (Phase A,B,C and Neutral)
Grounding:	Aluminum Casing

B. Environmental

Indoor, Low Impedance System

Ambient Operating Temperature:	40°C / 104°F
	60°C / 140°F (0.8 Amp Rating Multiplier)

1.04 SUBMITTALS

A. Submittals shall be in accordance with specified procedures. Submit shop drawing and product data for record purposes prior to shipment.

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B. Indicate construction details, including dimensions, weights, clearances, major component layout, power details. Include breaker, fused plug-in and cable schedule (if applicable), including cable lengths and plug-in schedules.

C. Include connection diagram for external wiring, and details of conduit and wiring connections and terminations.

D. Indicate special receiving and handling procedures.

E. Provide electrical characteristics and connection requirements for the system and accessories.

1.05 WARRANTY

A. The Busway manufacturer shall guarantee the entire system against defective material and workmanship for a period of one (1) year from date of shipment.

1.06 COMPONENTS

A. Frame and Enclosure

1. Extruded Aluminum housing designed to be light weight and act as a 100% ground. Housings to be 5, 10, or 20 ft standard length. This housing should be properly extruded with slots to receive rod mount hangers to hang from a ceiling. This housing should be open on the bottom to accept plug-in units. This opening shall pass UL's hypothetical finger probe test.

2. All conductors shall be made of copper and sized to handle 100% of it's rating continuously with ambient temperatures below 40°C / 104°F. The conductors shall be electrically isolated form the housing.

B. Plug-in Units

1. Plug-in units shall be polarized to avoid incorrect installation.
2. Plug-in units shall use [{circuit breakers} {fuses}] for branch circuit protection.
3. Plug-in units shall have locking clips or bolt-on tabs to secure units to the busway.
4. Plug-in units that include drop cords shall be manufactured with cord grips and receptacles as specified in the drawings.
5. Internal Plug – low profile, mounted internally in housing, two selectors rotate to hold to hold unit in place, for usage on 1P, 2P or 3Pole Busway; 13A unit for lighting; 15, 20, or 25 Amp for power drop usage (cord available, if required).

1.07 INSTALLATION

A. Busway Sections – The B60-ampere and runs will consist of lengths as shown on the drawings.

B. Hanging of the Busway – Using supplied 'Rod Mount Hangers', the RHB-3 busway will be hung from the ceiling using all thread. The installing contractor shall be responsible for the connections on the ceiling end. The supplied Rod Mount Hangers will connect the busway to the all thread. The maximum spacing is 10 ft on center for the hangers. The height of the busway shall be coordinated with the Architect.

C. Connecting Sections of Busway – At a junction of Busway sections, the installer will insert a Bus Connector (BC-4) into the end of housing. Position next housing onto this connector and join (2) sections together.

D. End of runs – End pieces and end caps will be provided to install at the ends of each run.

E. Closure Strip – The closure strip can be cut and fitted to cover the bottom opening of the Busway housing to prevent dust and debris from gathering in the Busway (if applicable).

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F. **WHR-1 - Weight Ring – used to support high bay fixtures; 50 lb maximum supporting weight can be suspended on housing. Powered or unpowered weight units and signage can be supported.**

G. **ACH-1 – Aircraft Cable Hanger Suspension – fit 1/16" cable, maximum support internal, 10 ft centers.**

H. **Supply as manufactured by Universal Electric Corporation; 3089 Washington Pike; Bridgeville, PA 15017; (800) 245-6378; (412) 221-4400; fax (412) 221-6828.**
No known equal.

END OF SECTION

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SECTION 16121 – BUSWAY SYSTEM B100

1.01 SUMMARY

A. This specification covers the electrical characteristics and general requirements for a track busway system, hereafter referred to as (Busway). The system shall be designed primarily for overhead distribution of electrical power. Supporting designated work areas and equipment. Once installed the Busway will provide a simple, versatile, fast, and economic means of distributing power. Loads fed from a variety of plug-in units can be easily added or removed without shutting power down to the busway.

1.02 STANDARDS AND CERTIFICATION

A. The BUSWAY shall be designed and manufactured to the follow standards:

1. Low Voltage Directive (73/23/EEC) including Amendment (93/68/EEC).
2. Low Voltage Switchgear and Controlgear Assemblies, Part 1: Type Tested and partially type tested Assemblies, IEC 60439-1: 1999.
3. Low Voltage Switchgear and Controlgear Assemblies, Part 2: Particular Requirements for Busbar Trunking systems (Busways), IEC 60439-2: 2000
4. Underwriters Laboratories Standard, UL 857 – The common UL, CSA, and ANCE Standard for Busways that is derived from the fifth edition of CSA Standard C22.2 No. 27, the twelve edition of UL 857, and the second edition of NMX-J-148-1998-ANCE.
5. Underwriters Laboratories Standard, UL 857 – The common UL, CSA, and ANCE Standard for Busways that is derived from the fifth edition of CSA Standard C22.2 No. 27, the twelve edition of UL 857, and the second edition of NMX-J-148-1998-ANCE.
6. CUL Listing
7. National Electric Code (NEC) – Article 364 – Busways
8. NEMA AB1, Molded Case Circuit Breakers and Molded Case Switches
9. NEMA KS-1, Enclosed and Miscellaneous Distribution Equipment Switches (600VAC).
10. NFPA 70 – National Fire Protection Agency

1.03 SYSTEM DESCRIPTION

A. Electrical Requirements

B100 Busway – Manufactured by Universal Electric Corp.
3089 Washington Pike
Bridgeville, PA 15017
Phone # (412) 221-4440

Voltage:	**120/208V, 300V or 600V**
Frequency:	**60 Hz**
Ampacity:	**100 A**
Neutral Ampacity:	**100 A**
Conductors:	**Qty. 4 (Phase A,B,C and Neutral)**
Grounding:	**Aluminum Casing**

B. Environmental

Indoor, Low Impedance System

Ambient Operating Temperature: **40°C / 104°F**
60°C / 140°F (0.8 Amp Rating Multiplier)

1.04 SUBMITTALS

A. Submittals shall be in accordance with specified procedures. Submit shop drawing and product data for record purposes prior to shipment.

RETURN TO MAIN MENU Back to SYSTEM SELECTION

B. Indicate construction details, including dimensions, weights, clearances, major component layout, power details. Include breaker, fused plug-in and cable schedule (if applicable), including cable lengths and plug-in schedules.

C. Include connection diagram for external wiring, and details of conduit and wiring connections and terminations.

D. Indicate special receiving and handling procedures.

E. Provide electrical characteristics and connection requirements for the system and accessories.

1.05 WARRANTY

A. The Busway manufacturer shall guarantee the entire system against defective material and workmanship for a period of one (1) year from date of shipment.

1.06 COMPONENTS

A. Frame and Enclosure

1. Extruded Aluminum housing designed to be light weight and act as a 100% ground. Housings to be 5, 10, or 20 ft standard length. This housing should be properly extruded with slots to receive rod mount hangers to hang from a ceiling. This housing should be open on the bottom to accept plug-in units. This opening shall pass UL's hypothetical finger probe test.

2. All conductors shall be made of copper and sized to handle 100% of it's rating continuously with ambient temperatures below 40°C / 104°F. The conductors shall be electrically isolated form the housing.

B. Plug-in Units

1. Plug-in units shall be polarized to avoid incorrect installation.
2. Plug-in units shall use [{circuit breakers} {fuses}] for branch circuit protection.
3. Plug-in units shall have locking clips or bolt-on tabs to secure units to the busway.
4. Plug-in units that include drop cords shall be manufactured with cord grips and receptacles as specified in the drawings.

1.07 INSTALLATION

A. Busway Sections – The B100-ampere and runs will consist of lengths as shown on the drawings.

B. Hanging of the Busway – Using supplied 'Rod Mount Hangers' the busway will be hung from the ceiling using all thread. The installing contractor shall be responsible for the connections on the ceiling end. The supplied Rod Mount Hangers will connect the busway to the all thread. The maximum spacing is 10 ft on center for the hangers. The height of the busway shall be coordinated with the Architect.

C. Connecting Sections of Busway – At a junction of Busway sections, the installer will insert a male coupling end of housing into mating housing end to join (2) sections together. A special tool supplied by manufacturer will be needed to join 100A Busway sections.

D. End of runs – End pieces and end caps will be provided to install at the ends of each run.

E. Closure Strip – The closure strip can be cut and fitted to cover the bottom opening of the Busway housing to prevent dust and debris from gathering in the Busway (if applicable).

F. Supply as manufactured by Universal Electric Corporation; 3089 Washington Pike: Bridgeville, PA 15017; (800) 245-6378; (412) 221-4400; fax (412) 221-6828.
No known equal.

END OF SECTION

SECTION 16468 – TRACK BUSWAY SYSTEM B225

1.01 SUMMARY

A. This specification covers the electrical characteristics and general requirements for a track busway system, hereafter referred to as (Track Busway). The system shall be designed primarily for overhead distribution of electrical power. Supporting designated work areas and equipment. Once installed the Busway will provide a simple, versatile, fast and economic means of distributing power. Loads fed from a variety of plug-in units can be easily added or removed without shutting power down to the busway.

1.02 STANDARDS AND CERTIFICATION

A. The Track Busway shall be designed and manufactured to the following standards:

1. Low Voltage Directive (73/23/EEC) including Amendment (93/68/EEC).
2. Low Voltage Switchgear and Controlgear Assemblies, Part 1: Type Tested and partially type tested Assemblies, IEC 60439-1: 1999.
3. Low Voltage Switchgear and Controlgear Assemblies, Part 2: Particular Requirements for Busbar Trunking systems (Busways), IEC 60439-2: 2000.
4. Underwriters Laboratories Standard, UL 857 – The common UL, CSA, and ANCE Standard for Busways that is derived from the fifth edition of CSA Standard C22.2 No. 27, the twelve edition of UL 857, and the second edition of NMX-J-148-1998-ANCE.
5. Underwriters Laboratories Standard, UL 857 – The common UL, CSA, and ANCE Standard for Busways that is derived from the fifth edition of CSA Standard C22.2 No. 27, the twelve edition of UL 857, and the second edition of NMX-J-148-1998-ANCE.
6. CUL Listing
7. National Electric Code (NEC) – Article 364 – Busways
8. NEMA AB1, Molded Case Circuit Breakers and Molded Case Switches
9. NEMA KS-1, Enclosed and Miscellaneous Distribution Equipment Switches (600VAC).
10. NFPA 70 – National Fire Protection Agency

1.03 SYSTEM DESCRIPTION

A. Electrical Requirements

B225 Track Busway – Manufactured by Universal Electric Corp.
3089 Washington Pike
Bridgeville, PA 15107
Phone # (412) 221-4440

Voltage	120/208 V, 300V or 600V
Frequency:	60 Hz
Ampacity:	225 A
Neutral Ampacity:	225 A
Conductors:	Qty 4 (Phases A,B,C and Neutral)
Grounding:	Aluminum Casing

B. Environmental

Indoor, Low Impedance System

Ambient Operating Temperature: 40°C / 104°F
60°C / 140°F (0.8 Amp Rating Multiplier)

1.04 SUBMITTALS

A. Submittals shall be in accordance with specified procedures. Submit shop drawing and product data for record purposes prior to shipment.

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Back to SYSTEM SELECTION

B. Indicate construction details, including dimensions, weights, clearances, major component layout, power details. Include circuit breaker, fused plug-in, and cable schedule (if applicable), including cable lengths and plug-in schedules.

C. Include connection diagram for external wiring, and details of conduit and wiring connections and terminations.

D. Indicate special receiving and handling procedures.

E. Provide electrical characteristics and connection requirements for the system and accessories.

1.05 WARRANTY

A. The Track Busway manufacturer shall guarantee the entire system against defective material and workmanship for a period of one (1) year from date of shipment.

1.06 COMPONENTS

A. Frame and Enclosure

1. Extruded Aluminum housing designed to be lightweight and act as a 100% ground. Housings to be 5, 10, or 20 ft standard length. This housing should be properly extruded with slots to receive rod mount hangers to hang from a ceiling. This housing should be open on the bottom to accept plug-in units. This opening shall pass UL's hypothetical finger probe test.

2. All conductors shall be made of copper and sized to handle 100% of it's rating continuously with ambient temperatures below 40°C / 104°F. The conductors shall be electrically isolated from the housing.

B. Plug-in Units

1. Plug-in units shall be polarized to avoid incorrect installation.
2. Plug-in units shall use [{circuit breakers} {fuses}] for branch circuit protection.
3. Plug-in units shall have locking clips or bolt-on tabs to secure units to the busway.
4. Plug-in units that include drop cords shall be manufactured with cord grips and receptacles as specified in the drawings.

1.07 INSTALLATION

A. Track Busway Sections – The B225-ampere and runs will consist of lengths as shown on the drawings.

B. Hanging of the Track Busway – Using supplied 'Rod Mount Hangers' the busway will be hung from the ceiling using all thread. The installing contractor shall be responsible for the connections on the ceiling end. The supplied Rod Mount Hangers will connect the track busway to the all thread. The maximum spacing is 10 ft on center for the hangers. The height of the track busway shall be coordinated with the Architect.

C. Connecting Sections of Track Busway – At a junction of Track Busway sections, the installer will insert a male coupling end of housing into mating housing end to join (2) sections together. A manufacturer supplied tool will assist in joining sections together.

D. End of Runs – End pieces and end caps will be provided to install at the ends of each run.

E. Closure Strip – The closure strip can be cut and fitted to cover the bottom opening of the Track Busway housing to prevent dust and debris from gathering in the Track Busway (if applicable).

Supply as manufactured by Universal Electric Corporation; 3089 Washington Pike; Bridgeville, PA 15017; (800) 245-6378; (412) 221-4400; fax (412) 221-6828. No known equal.

END OF SECTION

SUBMITTALS

STARLINE TRACK BUSWAY

SYSTEM SELECTION

- 40, 50, 60 Amp Compact - B40, B50, B60C
- Standard 60 Amp - B60
- Compact 100 Amp - B100C
- Standard 100 Amp - B100
- 100 Amp, 200 Neutral & Isolated Ground
- Standard 225 Amp - B225 & B225G

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SUBMITTALS

STARLINE TRACK BUSWAY

DRAWING TYPE

BASIC SYSTEM

OUTLETS

DROP CORD ASSEMBLIES

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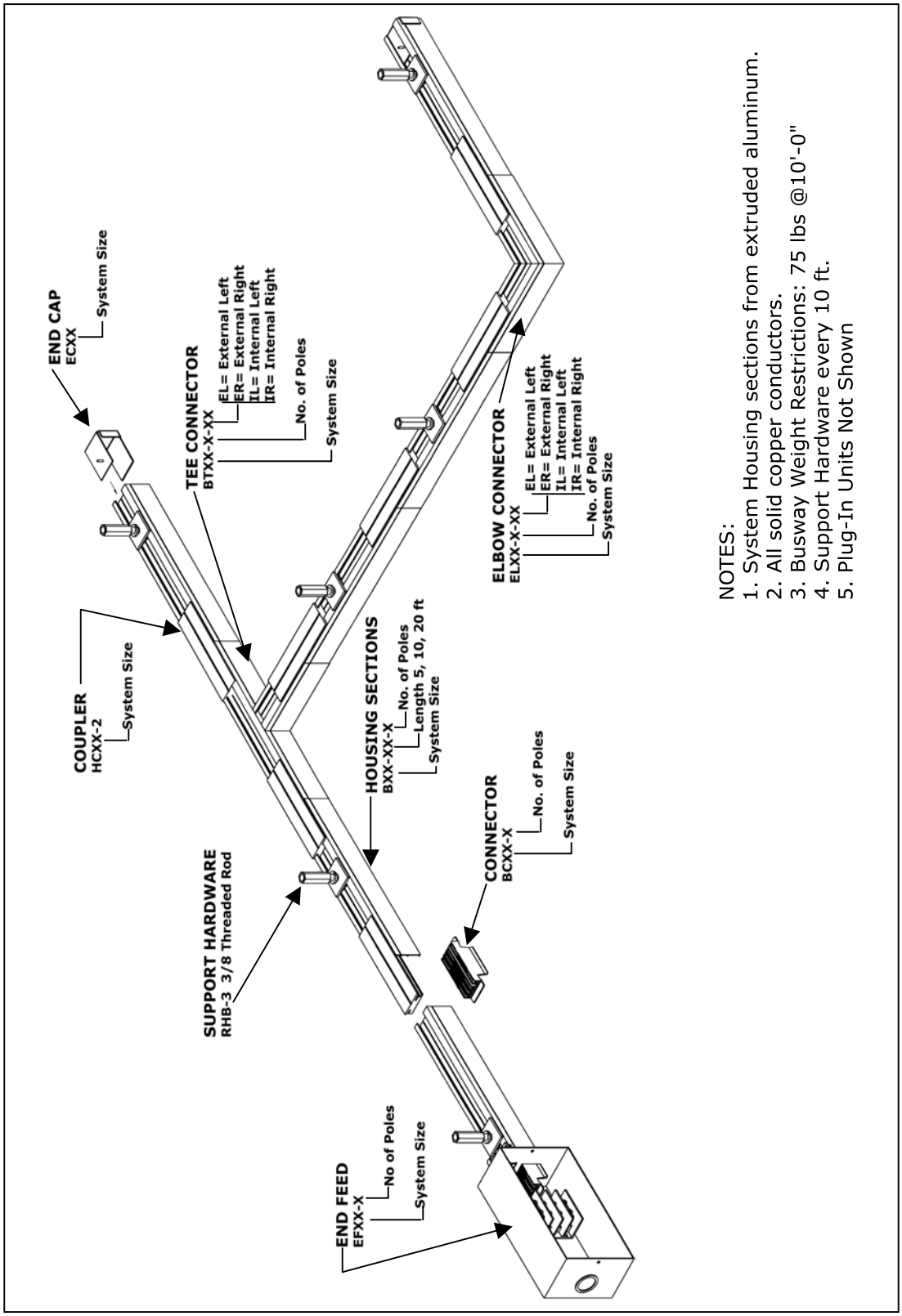
Back to SUBMITTAL SYSTEM SELECTION

Submittal

Compact B40, 50, 60C System

Compact B40, B50, B60C System Components



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STARLINE TRACK BUSWAY

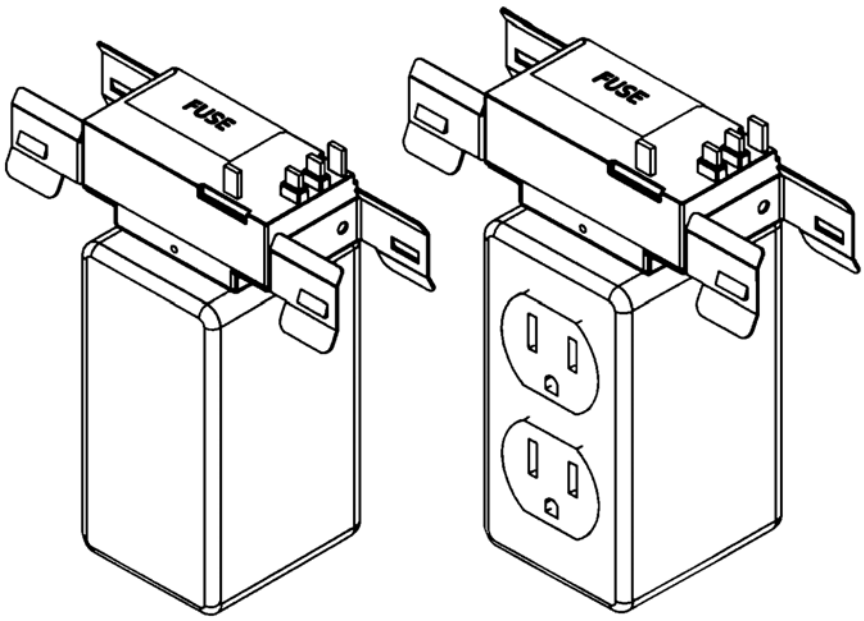
Submittal

Compact 40/50/60 Amp Outlet

Outlet Plug-In units are used to tap off power from the Busway. All plug-in units are equipped with a special plug head called a "Starjack" which "snaps" into the Busway continuous slot to make the spring-loaded connection. The installer simply inserts the unit into the Busway until a "clicking" sound is heard on each side of the connector. The snap-in connector provides ground connection for the box and load. All plug-in units are polarized to inhibit reverse installation.

A. Junction Box
Standard unit consists of J-box with connector, cover, ground lug and wire nuts. Optional fuse holders available.

B. Outlet Box
Standard unit consists of J-box with connector, NEMA 5-15 or 5-20 duplex receptacle, fuse and fuse holder. Other NEMA configurations available.



Junction Box

Outlet Box
(Always With Fuse)

c UL us LISTED

PART NUMBER(S) SUPPLIED

Qty	Part No	Qty	Part No	Qty	Part No
____	_____	____	_____	____	_____
____	_____	____	_____	____	_____

Catalog Number Sequence
(XXX)–(A)–(P)-XF

- **No. of fuses**
- **Number of Poles**
- **Amp Rating**
- **OB= Outlet Box**
  DRF = Duplex Receptacle

Catalog Number Selection * used in 40, 50 & 60C systems

Catalog No.	Description	Weight
OB50-30-2	Junction Box, 30A, 2-pole*	1.2 lb
OB50-30-4	Junction Box, 30A, 4-pole*	1.2 lb
OB50-30-4-XF	Junction Box, 30A, 4-pole*	1.3 lb
DRF50-20-A	Duplex, 20A, 2-pole, A-phase*	1.4 lb
DRF50-20-B	Duplex, 20A, 2-pole, B-phase*	1.4 lb
DRF50-20-C	Duplex, 20A, 2-pole, C-phase*	1.4 lb

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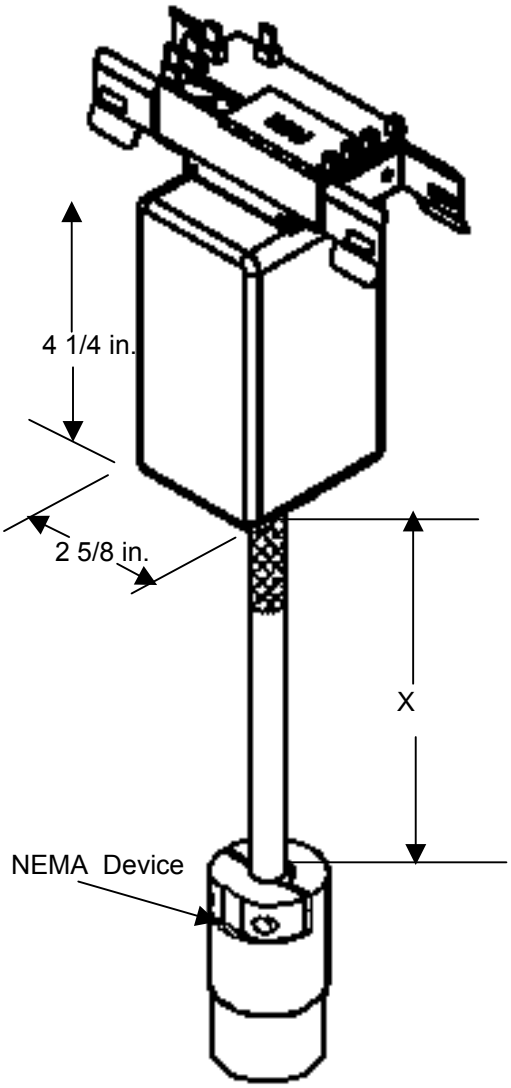
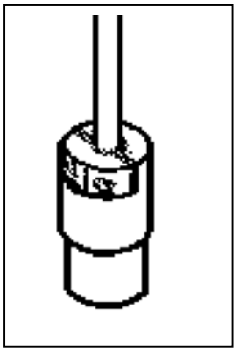
Submittal

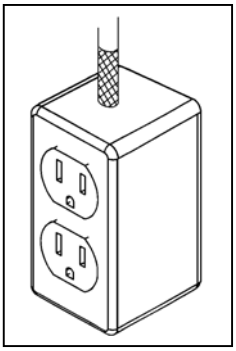
Compact 40/50/60 Amp Drop Cord



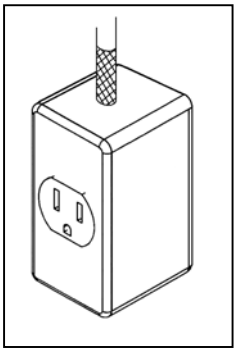
NEMA Device Type



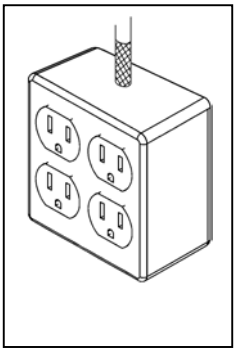
C – Connector



D- Duplex



R – Single Recpt



Q- Quad

PART NUMBER(S) SUPPLIED

Qty	Part No	Qty	Part No	Qty	Part No
____	_____	____	_____	____	_____

Material
Box – 16 gage
Box Color - Galvanized
Plug-In – Copper Spring Loaded in moulded base
Cord – SJO (600V available)
Weight – With Connector = lb/ft
With Duplex = lb/ft
With Quad = lb/ft
With Rect = lb/ft
Voltage Rating = 300or device rating (600 available)

PART NUMBER SEQUENCE

DC50 – (X) – (NEMA Device)(Type) – (P)

- DC50 → Drop Cord
- (X) → System Size (Amps)
- (NEMA Device)(Type) → Length in feet
- (Type) → Duplex – D; Single Receptacle – R; Quad – Q; Connector – C (shown)
- (P) → Number of Poles (2,3 or 4)

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SUBMITTALS

STARLINE TRACK BUSWAY

DRAWING TYPE

BASIC SYSTEM

OUTLETS

DROP CORD ASSEMBLIES

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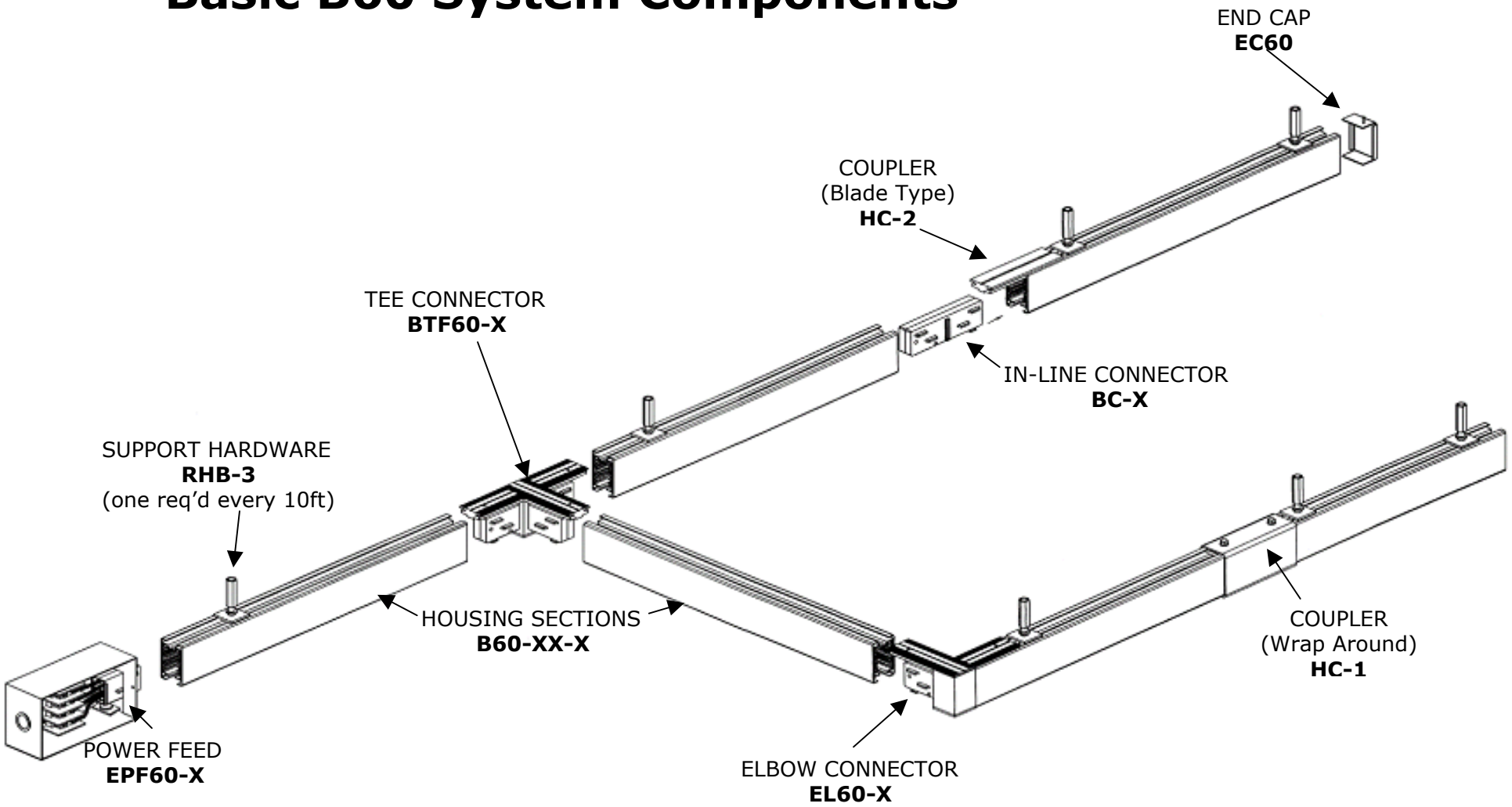
STARLINE TRACK BUSWAY

Submittal

Standard 60 Amp System

Basic B60 System Components



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STARLINE TRACK BUSWAY

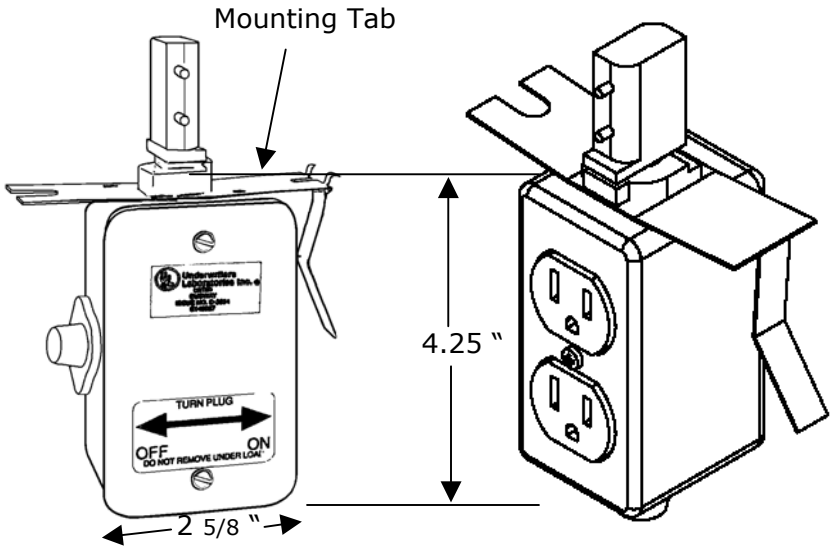
Submittal

Standard 60 Amp Outlet

Outlet Plug-In units are used to tap off power from the Busway. All plug-in units are equipped with a special plug head called a "Starjack" which inserts into the Busway continuous slot and turns 90 degrees to make the spring-loaded connection. The installer simply squeezes the locking tab, inserts the unit into the Busway, turns 90 degrees, and releases the locking tab. Both the locking and the bolt-on mounting tab provide ground connection for the box and load. All plug-in units are polarized to inhibit reverse installation.

A. Junction Box
Standard unit consists of J-box with Starjack, cover, ground lug and wire nuts. Optional fuse holders available.

B. Outlet Box
Standard unit consists of J-box with Starjack, NEMA 5-15 or 5-20 duplex, fuse and fuse holder. Other NEMA configurations available.



A. Junction Box **OB** Series with blank cover & fuse

B. Outlet Box **DRF** Series with NEMA 5-20 duplex receptacle

c UL us LISTED

PART NUMBER(S) SUPPLIED

Qty	Part No	Qty	Part No	Qty	Part No
____	_____	____	_____	____	_____

Catalog Number Sequence
(XX)60–(AA)-(P)

- **No. of Poles**
- **Outlet Amp**
- **System Size**
- **OB= Outlet Box**
  DRF =Duplex Receptacle, Fused

Catalog Number Selection (Typical)

Catalog No.	Description	Weight
OB60-L515-4	Outlet box with L5-15 Duplex/w fuse	1.4lb
OB60-L520R-4	Outlet box with L5-20 Recpt/w fuse	1.4lb
OB60-L615-4	Outlet box with L6-15 Recpt/w fuse	1.4lb
OB60-L620R-4	Outlet box with L6-20 Recpt/w fuse	1.4lb
OB60-L630R-4	Outlet box with L6-30 Recpt/w fuse	1.4lb
OB60-(15 or 30)-2	Outlet box, 15 or 30 Amp, 2-pole	1.1lb
OB60-(15 or 30)-3	Outlet box, 15 or 30 Amp, 3-pole	1.2lb
OB60-(15 or 30)-4	Outlet box, 15 or 30 Amp, 4-pole	1.3lb
(add –1F, -2F, -3F for 1,2 or 3 fuses)		
DRF60-(A,B or C)	Duplex Outlet NEMA 5-15	1.4lb

(outlet box 300 volt rated, for 600 volt, add "-600" to number)
(DRF units are 15 amp. Add "-20" for 20 amp receptacle)

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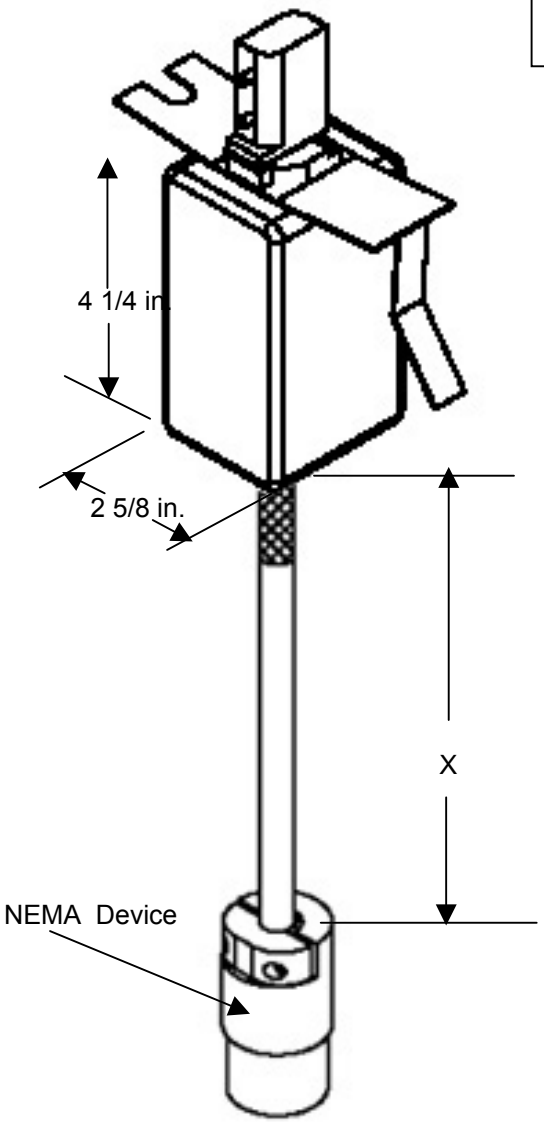
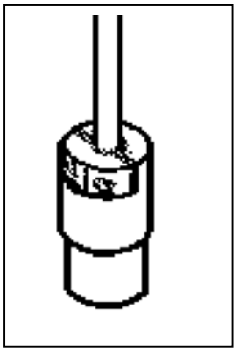
Submittal

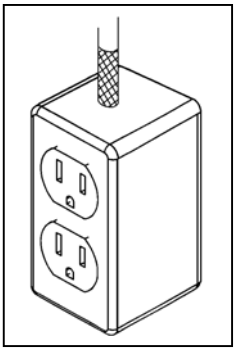
60 Amp Drop Cord



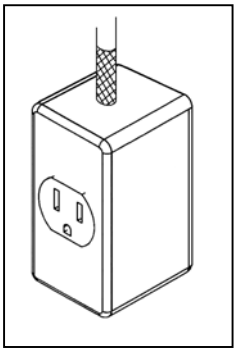
NEMA Device Type



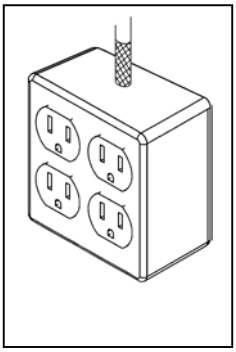
C – Connector



D- Duplex



R – Single Recpt



Q- Quad

PART NUMBER(S) SUPPLIED

Qty	Part No	Qty	Part No	Qty	Part No
____	_____	____	_____	____	_____

Material
Box – 16 gage
Box Color - Galvanized
Plug-In – Copper Spring Loaded in moulded base
Cord – SJO (600V available)
Weight – With Connector = lb/ft
With Duplex = lb/ft
With Quad = lb/ft
With Rect = lb/ft
Voltage Rating = 300or device rating (600 available)

PART NUMBER SEQUENCE

DC60 – (X) – (NEMA Device)(Type) – (P)

- Drop Cord
- System Size (Amps)
- Length in feet
- Duplex – D
  Single Receptacle – R
  Quad – Q
  Connector – C (shown)
- Number of Poles (2,3 or 4)

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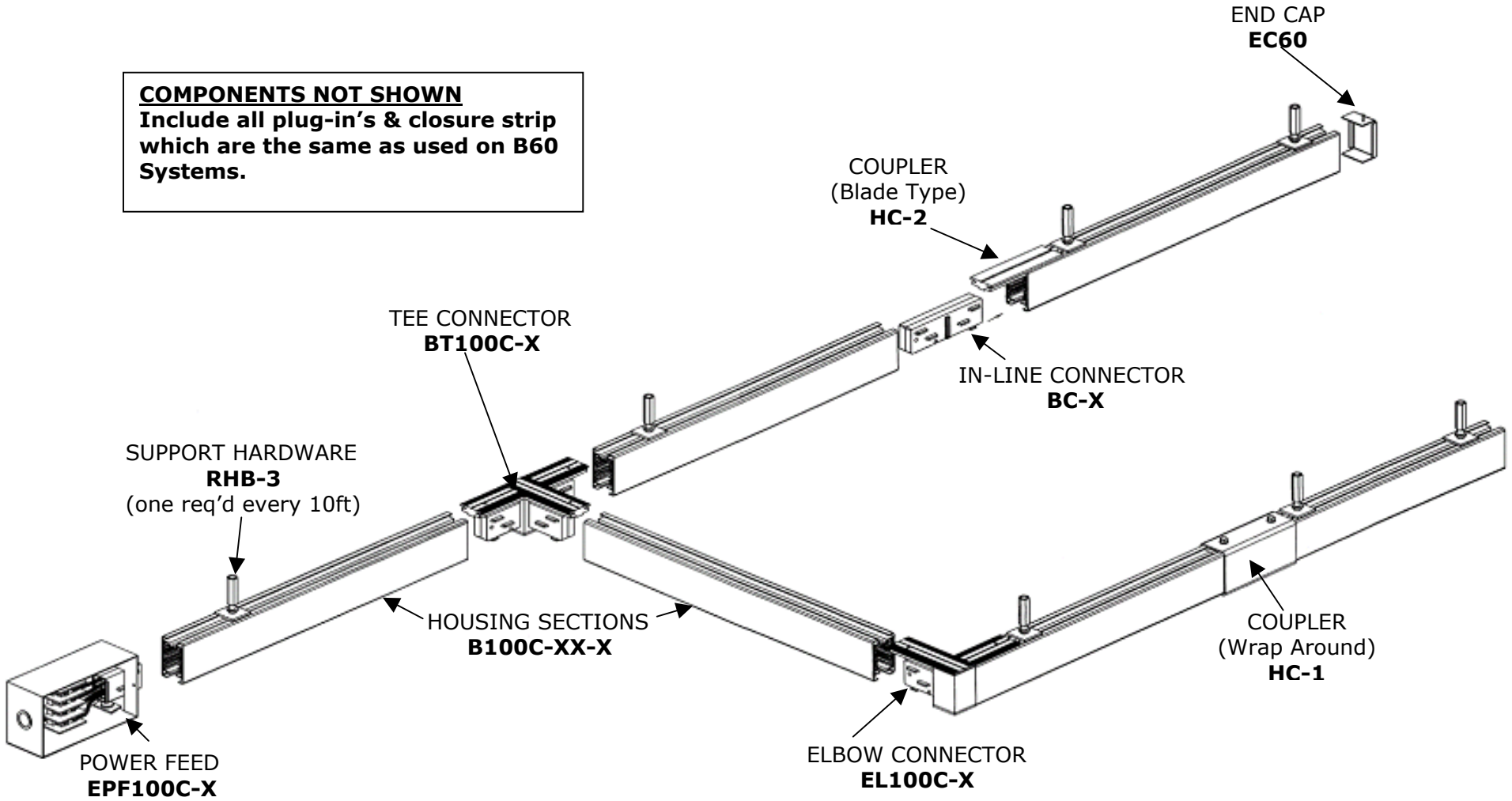
STARLINE TRACK BUSWAY

Submittal

Compact 100 Amp System

Basic B100C System Components

COMPONENTS NOT SHOWN
Include all plug-in's & closure strip which are the same as used on B60 Systems.



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SUBMITTALS

STARLINE TRACK BUSWAY

DRAWING TYPE

BASIC SYSTEM

OUTLETS

DROP CORD ASSEMBLIES

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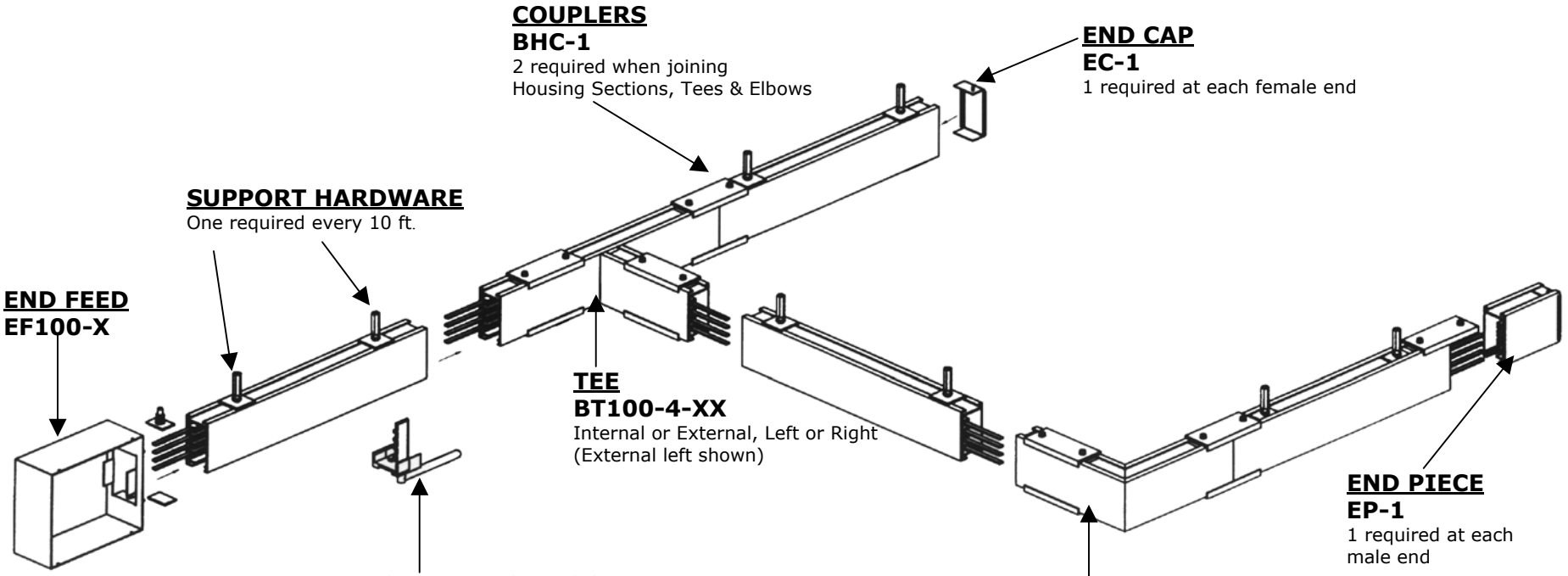
STARLINE TRACK BUSWAY

Submittal

Standard 100 Amp System

Basic B100 System Components



COMPONENTS NOT SHOWN
Plug-In Units, Closure Strip, Weight Hook

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Back to SUBMITTAL SYSTEM SELECTION

STARLINE TRACK BUSWAY

Submittal

Standard 100 Amp Outlet

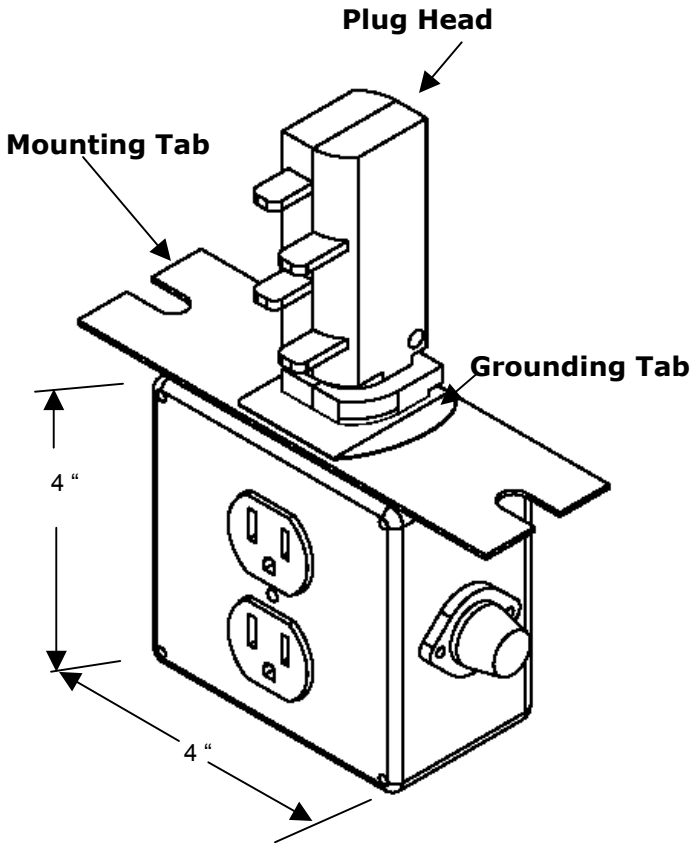
Outlet Plug-In units are used to tap off power from the Busway. All plug-in units are equipped with a plug head and grounding tab which inserts into the Busway continuous slot and turns 90 degrees to make the spring-loaded connection. The installer simply inserts the unit into the Busway, becomes automatically grounded and turns 90 degrees. Unit is locked into position with bolt-on mounting tabs. All plug-in units are polarized to inhibit reverse installation and face in the direction of the Busway conductors. Refer to layout for further explanation.

OB Junction Box

Standard unit consists of J-box with plug-head, cover, ground lug and wire nuts. Optional fuse holders available. Most common NEMA outlet configuration are available.

DRF Unit

Standard unit consists of 4 x 4 J-box with plug-head, NEMA 5-15 or 5-20 duplex, fuse and fuse holder.



c UL us LISTED

PART NUMBER(S) SUPPLIED

Qty	Part No	Qty	Part No	Qty	Part No
____	_____	____	_____	____	_____

Catalog Number Sequence

OB100-(XXXX)–(P)-XF

- **No. of fuses**
- **System Poles**
- **NEMA Config or Ampacity if no device**
- **System Size**
- **Outlet Box**

Common Catalog Number Selection

Catalog No.	Description	Weight
OB100-40-4*	Outlet Box, 40 Amp, 4-pole	1.5 lb
OB100-60-4*	Outlet Box, 60 Amp, 4-pole	1.5 lb
DRF100-15-3	Duplex receptacle, fused, 3-pole	2 lb
DRF100-15-4	Duplex receptacle, fused, 4-pole	2.2 lb
OB100-L520-4	Outlet , NEMA L5-20, 4-pole	
OB100-L530-4	Outlet , NEMA L5-30, 4-pole	
OB100-L620-4	Outlet , NEMA L6-20, 4-pole	
OB100-L630-4	Outlet , NEMA L6-30, 4-pole	
OB100-530Q-4	Outlet , NEMA 5-30 Quad, 4-pole	

* - add"-1F, -2F or 3F for Type CC fuse holders. Order Type CC fuses separately

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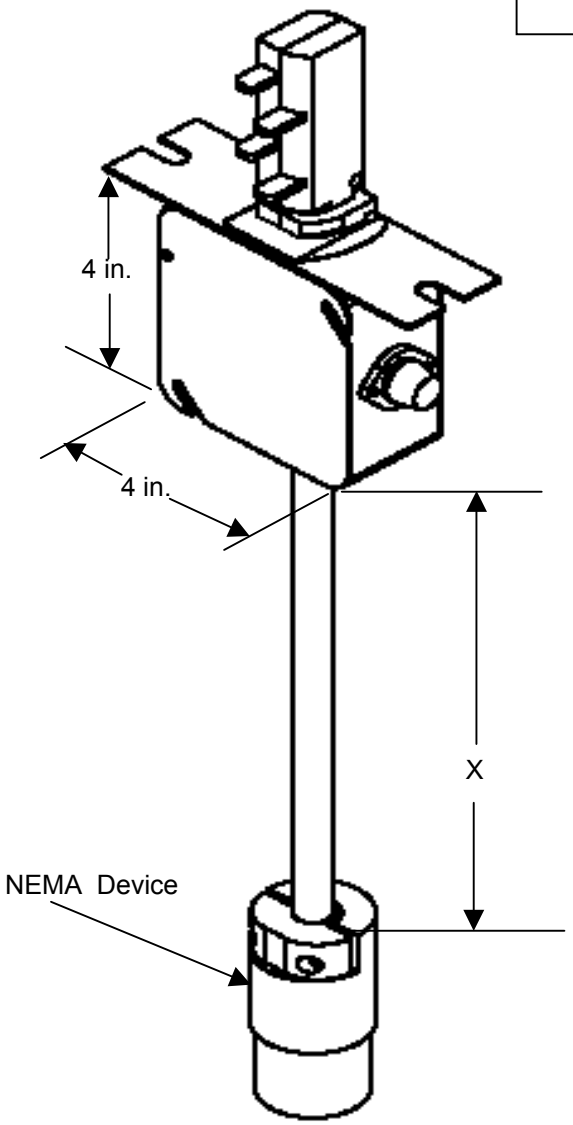
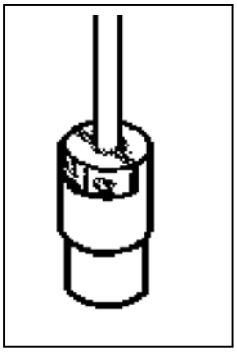
Submittal

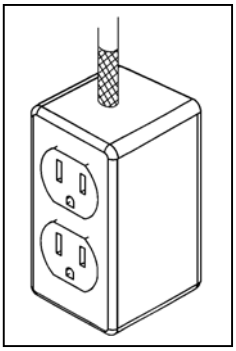
100 Amp Drop Cord



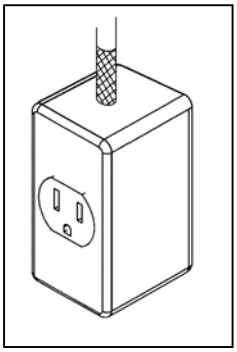
NEMA Device Type



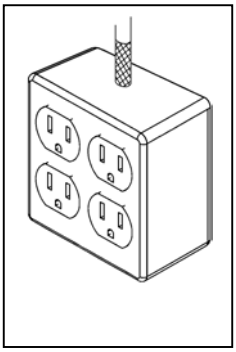
C – Connector



D- Duplex



R – Single Recpt



Q- Quad

PART NUMBER(S) SUPPLIED

Qty	Part No	Qty	Part No	Qty	Part No
____	_____	____	_____	____	_____

Material
Box – 16 gage
Box Color - Gray
Plug-In – Copper Stab in molded base
Cord – SJO (600V available)
Weight – With Connector = lb/ft
With Duplex = lb/ft
With Quad = lb/ft
With Rect = lb/ft
Voltage Rating = 300or device rating (600 available)

PART NUMBER SEQUENCE

DC100 –(X) – (NEMA Device)(Type) – (P)

- Drop Cord
- System Size (Amps)
- Length in feet
- Duplex – D
  Single Receptacle – R
  Quad – Q
  Connector – C (shown)
- Number of Poles (2,3 or 4)

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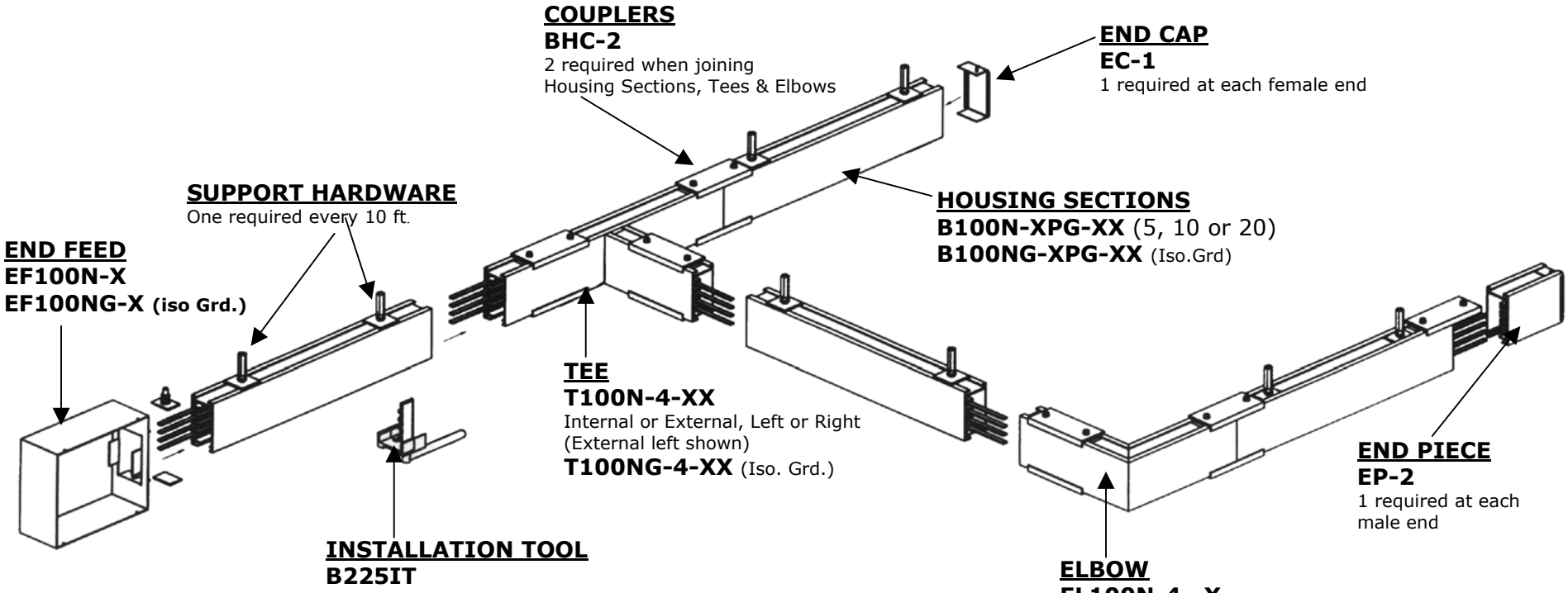
STARLINE TRACK BUSWAY

Submittal

100 Amp, 200% Neutral System

Basic B100N or NG System Components



COMPONENTS NOT SHOWN
Plug-In Units, Closure Strip, Weight Hook are the same as used on B225 Systems

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SUBMITTALS

STARLINE TRACK BUSWAY

DRAWING TYPE

BASIC SYSTEM

OUTLETS

DROP CORD ASSEMBLIES

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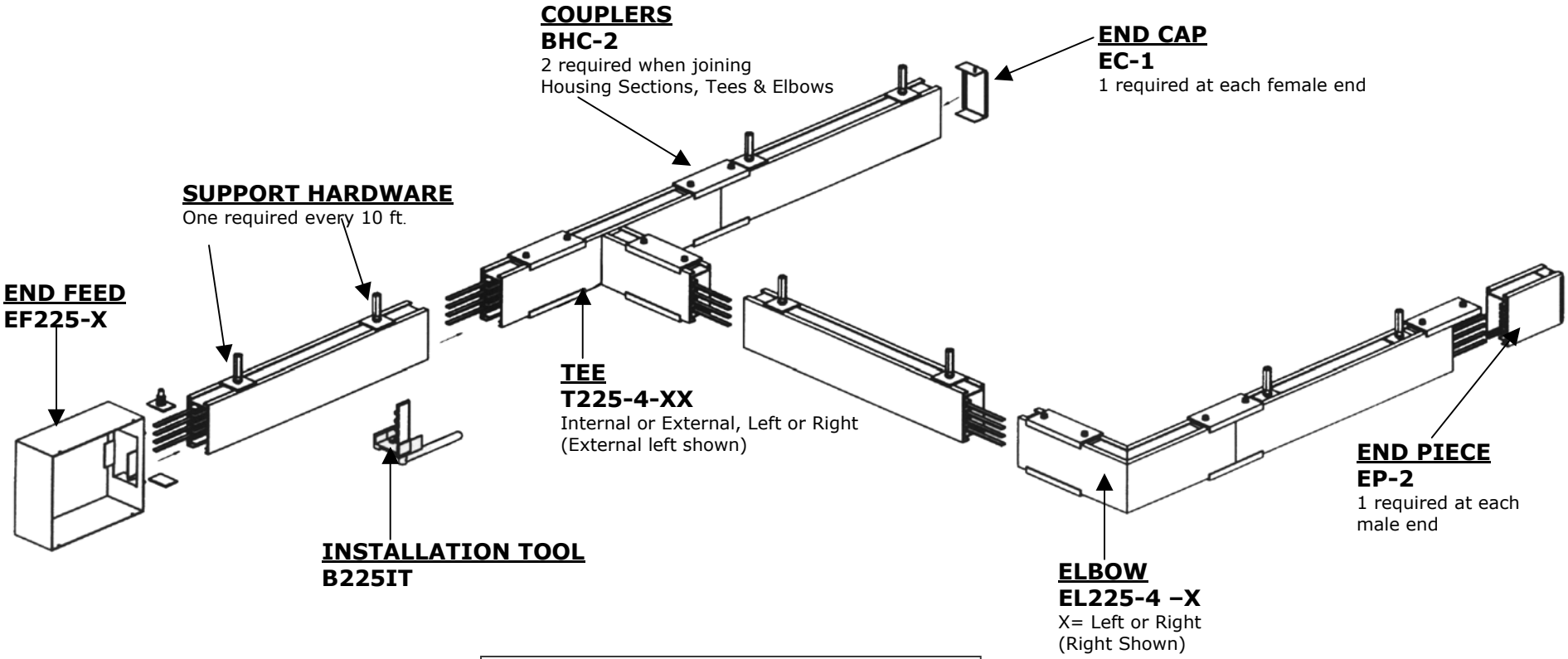
STARLINE TRACK BUSWAY

Submittal

Standard 225 Amp System

Basic B225 System Components



COMPONENTS NOT SHOWN
Plug-In Units, Closure Strip, Weight Hook

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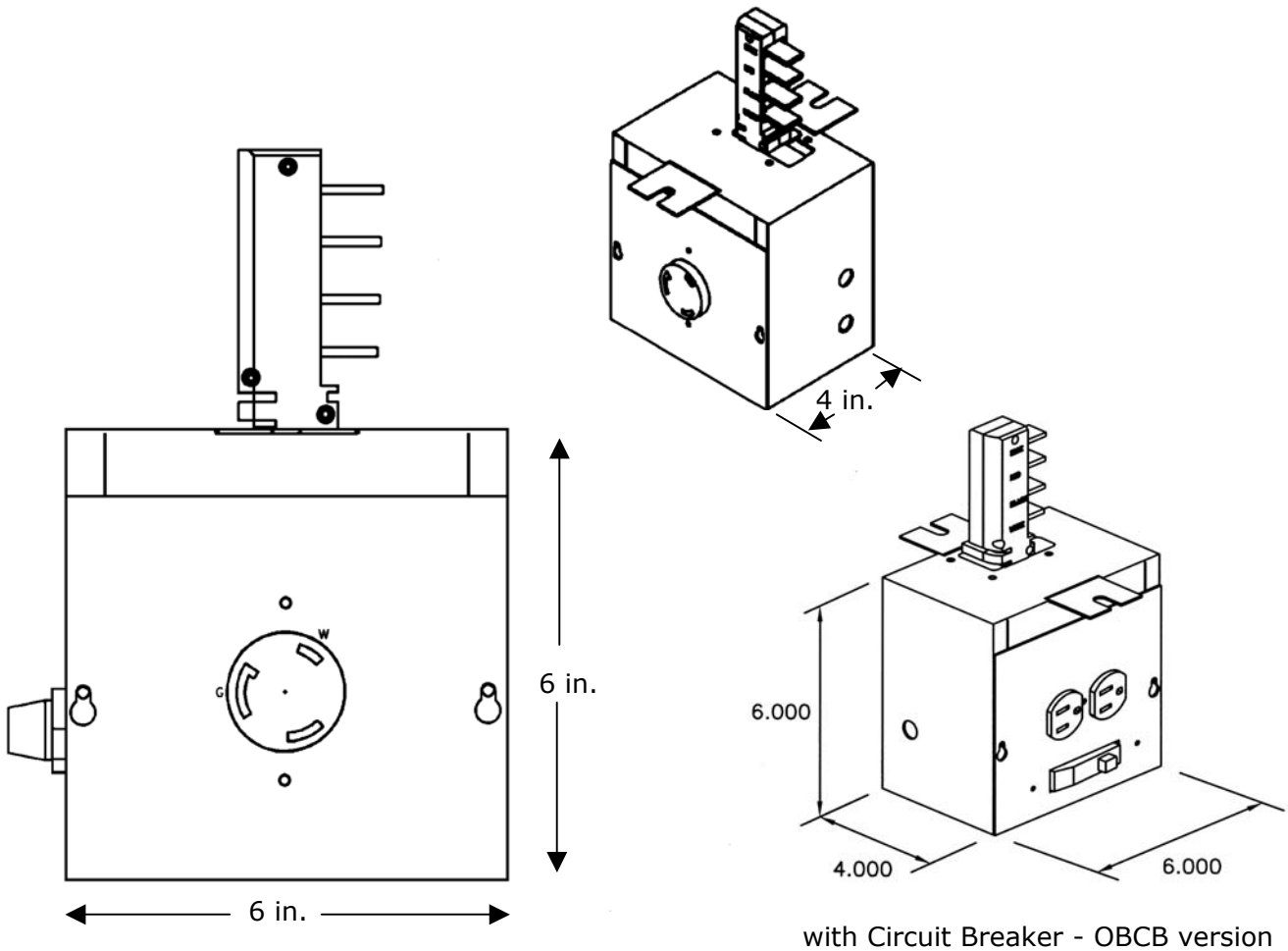
Submittal

225Amp or 100Amp2N Outlet Box



with Circuit Breaker - OBCB version

PART NUMBER(S) SUPPLIED

Qty	Part No	Qty	Part No	Qty	Part No
____	_____	____	_____	____	_____

Material
Box – 16GA Steel
Box Color - Gray
Plug Head – Copper stabs in moulded base
Weight – 30A, 4 pole = 4.2 lb
30A, 3 pole = 4.0 lb
60A, 4 pole = 4.2 lb
fused recept = 4.3 lb

Voltage Rating = 600 or 300 or by device

PART NUMBER SEQUENCE

OB(XX) 225 –(XXXX)(X) – (X) – (X) F

- **Fuse (automatic with NEMA recpt)**
- No. of fuses (if no device)
- Number of Poles (2,3 or 4)
- G=Iso Grd, N= Double Neutral
- NEMA configuration or ampacity if no receptacle
- System Size (225 used for both B225 and B100N Systems)
- CB – with Circuit Breaker
- Outlet Box

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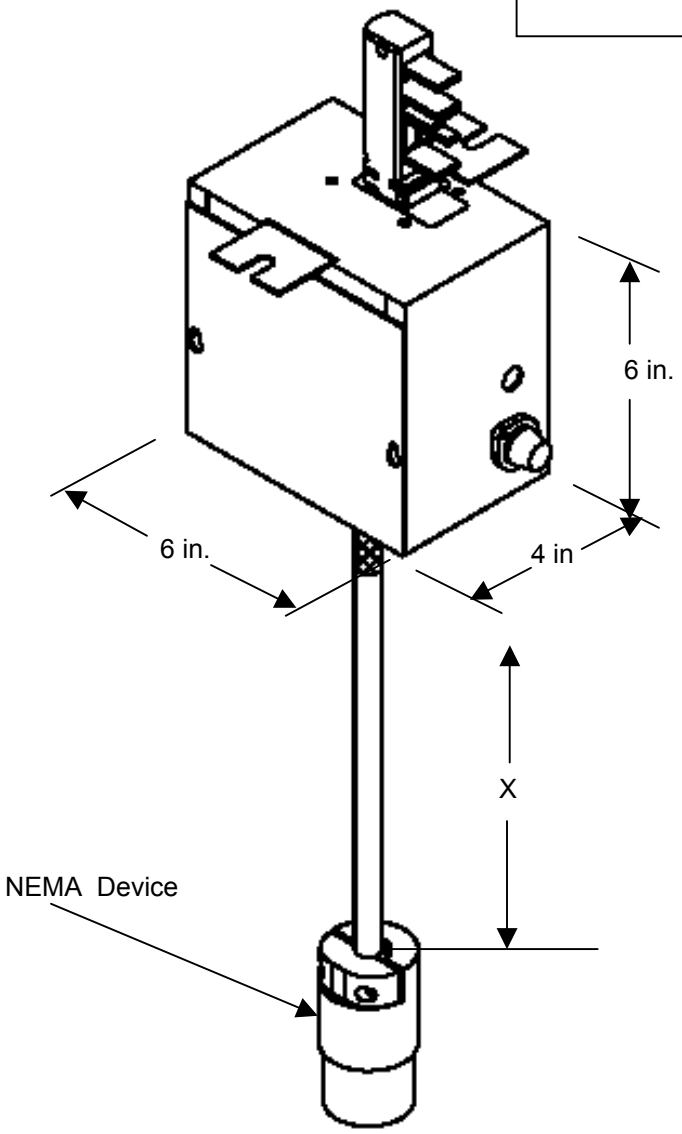
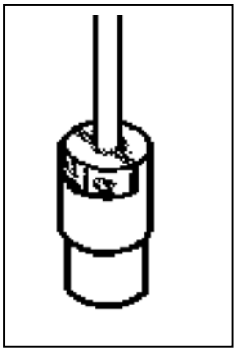
Submittal

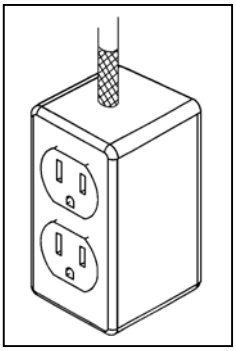
225Amp Drop Cord



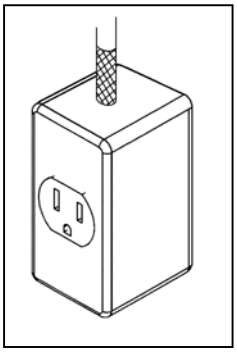
NEMA Device Type



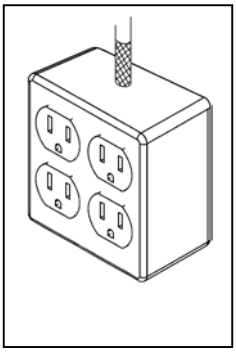
C – Connector



D- Duplex



R – Single Recpt



Q- Quad

PART NUMBER(S) SUPPLIED

Qty	Part No	Qty	Part No	Qty	Part No
____	_____	____	_____	____	_____

Material

Box – 16 gage
Box Color - Gray
Plug-In – Copper Stab in molded base
Cord – SJO (600V available)
Weight – With Connector = lb/ft
With Duplex = lb/ft
With Quad = lb/ft
With Rect = lb/ft
Voltage Rating = 300or device rating (600 available)

PART NUMBER SEQUENCE

DC225 –(X) – (NEMA Device)(Type) – (P)

- Number of Poles (2,3 or 4)
- Length in feet
- Duplex – D
  Single Receptacle – R
  Quad – Q
  Connector – C (shown)
- System Size (Amps)
- Drop Cord

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