Spring City™
Electrical Manufacturing Company

Cast Iron Junction Boxes & Pole Bases

Highway Projects  Bridge Construction  Water Treatment Plants

DEPARTMENT OF TRANSPORTATION
APPROVED

2018 Catalog
boxes.springcity.com
Terms and Conditions

Payment Terms
Net 30 Days from date of invoice - cash discounts not permitted. Invoices are dated the day of shipment. Spring City reserves the right, at any time, to demand full or partial payment before proceeding with an order if, in its judgment, the financial condition of the purchaser shall not justify the terms of the payment specified. If delivery is deferred by the purchaser beyond the original delivery date indicated, payment shall be due in full when Spring City is prepared to ship. The material may be stored at the risk and expense of the purchaser. If the purchaser defaults when any payment is due, then the whole contract price shall become due and payable upon demand. Spring City, at its opinion, without prejudice to other lawful remedies, may defer delivery or cancel the order.

Freight Allowance
All shipments are FOB common carrier at shipper’s point. Shipping for each order exceeding $2000.00, prior to adding freight costs, will be prepaid and allowed to common carrier freight station to the nearest destination (unless overall rate of carrier includes door to door delivery) within the United States except Alaska and Hawaii, where freight will be prepaid to US point of embarkation. Spring City organized shipments to Alaska and Hawaii are permissible at an increased cost to be fully paid for by the customer. Shipping for each order not exceeding $2000.00, or having a special routing request, will be prepaid and billed.

Changes and Cancellations
Spring City will comply with requests to increase, decrease, add or subtract quantities and types on orders that have already been processed, but pricing is subject to change. Cancellations must be confirmed with Spring City in order to determine potential charges involved.

Returns
Permission to return material must be obtained in writing from Spring City. A minimum 30% handling and restocking fee will be charged. In the event that Spring City provided material and/or equipment not specified on the order, this fee will be waived. Returned material must be received in clean, resale condition. Cast junction boxes with drilled conduit holes will not be accepted for return.

Claims and Taxes
Title to the materials are passed to the purchaser upon delivery to the common carrier. Immediately, upon receipt of shipment, the consignee should file any and all claims for loss or damage in transit with the transportation company. Packing shortage claims must be made within 5 business days of receipt of shipment. Spring City reserves the right to the sales price of its products as well as any and all taxes imposed by law and made applicable to its products.

Prices and Quotations
Firm price quotations and discounts will be given in writing upon application to Spring City Electrical Mfg. Co. All quotations, bids, and the acceptance of all contracts and orders, are subject to final approval at the home office of Spring City. The acceptance and processing of orders is contingent upon government restrictions and conditions beyond control. Spring City reserves the right to make changes in prices, discounts, dimensions, engineering, and specifications without notice.

Shipment and Delivery
All specified dates are estimated. Unless stated otherwise, they are determined from date of receipt of order. In estimating such dates, no allowance has been made, nor shall Spring City be liable directly or indirectly, for delays of carriers or delays from labor difficulties, shortages, strikes of stoppages of any sort, fires, accidents, failure, or delay in obtaining materials or manufacturing facilities, acts of government affecting Spring City directly or indirectly, bad weather, or any causes beyond our control or causes designated as Act of God or force majeure by any court of law, and estimated delivery dates will be extended accordingly. Spring City will not be liable for any damages, or penalties whatsoever, whether directly, indirectly, special or consequential, resulting from our failure to perform or delay in performing unless otherwise agreed in writing by an authorized officer.
Junction Box General Info
Terminology Defined

ADVANTAGES OF CAST ENCLOSURES

- One-piece construction during the casting process eliminates possible opening that can occur when welding seams of fabricated sheet metal boxes.
- Thick walls provide great mechanical strength, which allows for AASHTO H-20 loading and field drilling.
- Metals used in the casting process are inherently more corrosion-resistant than sheet steel.

TYPICAL APPLICATIONS

- Enclose and protect electrical equipment
- Act as pull box and provide easy access to conductors
- Provide for branch conduit runs

CAST METALS USED

Cast Iron: Generally recognized by engineers for its superiority in electrical systems where long life is required under corrosive conditions. Cast iron surfaces are protected by a natural oxide coating, which prevents oxidation. SPRING CITY adds a further level of corrosion protection by hot-dip galvanizing our products. This process conforms to ASTM designations A123-84, A-153-82 Class A, and to NEMA requirements. The galvanized finish is not only attractive but does not require periodic recoating. SPRING CITY'S close grain gray iron castings conform with the ASTM designation A48-83, Class 25. This material allows for an ease of machining both slip and threaded conduit holes in our shop or in the field.

Cast Aluminum: Boxes are free of copper (contain a maximum of .04%) and are valued for their light weight, non-rusting, non-sparking, and non-magnetic properties. Although, unless suitably coated, aluminum units are subject to corrosion under certain alkali conditions such as a flush installation in concrete.

MINIMUM BOX SIZES

To avoid damage to conductor insulation, all boxes containing conductors 4 AWG and larger must be sized per the below specs:

Straight Pulls: The length shall not be less than eight times the diameter of the largest raceway.

Angle and U Pulls: The distance from the raceway entrance to the opposite wall cannot be less than six times the largest raceway diameter, plus the sum of the diameters of the remaining raceways on the same wall. The distance between raceways enclosing the same conductor shall not be less than six times the diameter of the largest raceway.

Exception: When conductors enter an enclosure with a removable cover, such as a Junction Box, the distance from where the conductors enter to the removable cover cannot be less than the bending distance as listed in Table 312.6(A) for one wire per terminal.

For a complete wording of minimum size requirements for junction and pull boxes, see the National Electrical Code Article 314.28.

DIMENSIONS, CONDITIONS & PRICES

Dimensions: The dimensions of all enclosures listed on pages 3 and 4 are nominal inside dimensions given in the order of length by width by depth (L x W x D). Depths shown may decrease by up to 3/8” due to ribs cast on underside of iron covers.

Conditions: The dimensions and weights given on the following pages may vary within normal foundry tolerances and are for general information only. All data is subject to change without notice.

Prices: Price quotations are available upon request by contacting the number below. All quotations, bids, and the acceptance of all contracts and orders are subject to final approval by SPRING CITY.

TYPES OF ENCLOSURES

LPB, RPB, and CPB: Light, Receptacle, and Combination Pole Bases.
Type ER: External Recessed. Ideal for flush mounting.
Type FF: Flat Flange. Ideal for surface mounting.

APPLICABLE STANDARDS

UL 50 and 50E: These standards cover the non-environmental and additional environmental construction/performance requirements for enclosures to provide a degree of protection to personnel against incidental contact with the enclosed equipment as well as protection from conditions such as condensation, icing, corrosion, or contamination.

NEMA 250 Type 4: (SPRING CITY'S Standard) Indoor or outdoor use to provide a degree of protection to personnel against access to hazardous parts; to provide a degree of protection of the equipment inside the enclosure against ingress of solid foreign objects (falling dirt and windblown dust); to provide a degree of protection with respect to harmful effects on the equipment due to the ingress of water (rain, sleet, snow, splashing water, and hose directed water); and that will be undamaged by the external formation of ice on the enclosure.

Other Terms Used to Define Type 4 Enclosures: Dust Tight, Rain Tight, Water Tight, Weather Proof, Weather Resistant (NEMA 4X and NEMA 6 available upon request)

EQUIPMENT

Covers: Available in smooth or checkered steel, aluminum, or iron. Ductile iron covers, which conform to ASTM designation A536-84, Grade 65-45-12 as well as steel covers may be provided upon request to meet heavy vehicular loading requirements (AASHTO H-20). Cast-on or engraved cover lettering is also available.

Cover Screws: Stainless steel flat or pan head screws are standard. Tamper-resistant and hex head bolts are available upon request.

Gaskets: Composed of a neoprene blend, which prevents water entry and are resistant to oils, abrasion, aging, and oxidation.

Finish: Hot-dip galvanizing of cast iron boxes is standard. Powder coating Aluminum boxes allow for NEMA 4X.

Basses: (Suffix -B) Cast on the base or wall of a box to provide additional thickness for mounting straps, ground lugs, and/or additional threads for conduit entrances.

Mounting Straps: (Suffix -MS) Available in steel or aluminum. Externally mounted to the base of a box for secure surface mounting.

Mounting Plates: (Suffix -MP) Supplied in steel. Internally mounted on base of box to provide space to mount electrical components.

Ground Lugs and Buttons: (Suffix -G or -GB) Internally installed to allow for means of grounding conductors.

CONDUIT ENTRANCES

Slip Holes: Conduit clearance holes drilled without threads. Locknuts and bushings are the usual means of fastening conduit.

Drilled and Tapped Holes: Conduit holes drilled with threads for a more secure conduit installation. The number of threads is dependent on each junction box's wall thickness. This can be found on page 5 to determine whether the required threads can be provided. For non-hazardous locations, UL requires 1/4" wall thickness allowing for a minimum of three full threads. If the thread chart indicates that the required amount of threads cannot be provided, due to wall thickness, then a boss should be specified. Bosses will always be sufficiently thick to provide for five full threads. Threads are standard ASA B2.1, NPT (National Pipe Taper). Tapped conduit entrances are required to maintain Type 4 Enclosure Standards.
Pole Bases
LPB, RPB, & CPB Information

OVERVIEW

Ductile Iron Pole Bases are able to be combined with pressure pipe and a fixture to fabricate inexpensive outdoor lighting options. A great rigidity between the hollow base and pipe upright is achieved through the Pole Base’s deep tapped hub and its strong locking engagement with the pipe. Each base is drilled and tapped for two ¾” - 16 stainless steel headless set screws, 180° apart, to prevent pipe from rotating. The junction chamber is tapped for a ¾” - 20 ground lug and is ample for splicing and grounding. Pole Bases can be supplied with vertical or horizontal receptacles with weatherproof covers for use with tools, supplementary lighting, etc. Pole bases accommodate pipe ranging from 2” - 4”. Ground lugs available upon request. Ground Fault Receptacle available at additional cost. Anchor bolts not included.

### Receptacle Position, Cover Type, and Door Material to be specified upon order

<table>
<thead>
<tr>
<th>Light Pole Base</th>
<th>Receptacle Pole Base</th>
<th>Combination Pole Base</th>
</tr>
</thead>
<tbody>
<tr>
<td>LPB 200</td>
<td>RPB 200</td>
<td>CPB 200</td>
</tr>
<tr>
<td>LPB 250</td>
<td>RPB 250</td>
<td>CPB 250</td>
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<tr>
<td>LPB 300</td>
<td>RPB 300</td>
<td>CPB 300</td>
</tr>
<tr>
<td>LPB 400</td>
<td>RPB 400</td>
<td>CPB 400</td>
</tr>
</tbody>
</table>

Light Pole Base includes smooth door secured with flat head machine screws and a watertight gasket. Hot-dip galvanized finish.

Receptacle Pole Base includes receptacle and weatherproof cover installed on a smooth door secured with flat head machine screws and a watertight gasket. Hot-dip galvanized finish.

Combination Pole Base is the same as RPB with additional receptacle and cover on opposite side. Both installed on a smooth door secured with flat head machine screws and a watertight gasket. Hot-dip galvanized finish.

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Pipe Size</th>
<th>External Height</th>
<th>External Dimensions</th>
<th>Anchor Bolt Spacing</th>
<th>Anchor Bolt Diameter</th>
<th>Internal Dimensions</th>
<th>Approx Weight/Lbs</th>
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<td>LPB 200</td>
<td>2</td>
<td>7 ¾</td>
<td>8 15/16 x 8 15/16</td>
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<td>LPB 250</td>
<td>2 ½</td>
<td>7 ¾</td>
<td>8 15/16 x 8 15/16</td>
<td>6 ½ x 6 ½</td>
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<tr>
<td>LPB 300</td>
<td>3</td>
<td>7 ¾</td>
<td>8 15/16 x 8 15/16</td>
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<td>½</td>
<td>4 ½ x 4 ½</td>
<td>30</td>
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<tr>
<td>LPB 400</td>
<td>4</td>
<td>10 ¾</td>
<td>9 ¾ x 9 ¾</td>
<td>7 ¾ x 7 ¾</td>
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<td>5 ½ x 5 ½</td>
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</table>

200, 250, and 300 series permit four 1” conduit stubs; 400 series permits four 1 ¾” conduit stubs
400 series is normally furnished with drilled anchor bolt holes instead of slotted openings
All dimensions displayed in inches

### LIGHTING APPLICATIONS

- Water Treatment Plants
- Parking Areas
- Railway Platforms
- Service Stations
- Dams
- Marinas
- Piers and Docks
- Swimming Pools
- Playgrounds

### ADDITIONAL APPLICATIONS

- Mounting Signs
- Mounting Traffic Lights
- Mounting Pole Call Boxes
- Mounting Fire Boxes
- Mounting Electrical Enclosures
- Mounting Yard Speakers

Spring City Electrical Manufacturing Company
Phone: 610-948-4000    www.springcity.com
**Type ER Junction Boxes**

Available in Cast Iron & Cast Aluminum

**RAINTIGHT (UL LISTED) - WATERTIGHT (NEMA 4)**

**All box sizes available as Type FF**

Type ER Junction Boxes are designed specifically for flush mounting as illustrated but may be surface mounted. Corner rib located under flange for additional strength. Checkered cover provides a slip-resistant surface. Available with smooth cover. NEMA 4X (Alum. only) and NEMA 6 available at additional cost.

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### Typical Applications:
- Enclose and protect electrical equipment
- Act as pull box and provide easy access to conductors
- Provide for branch conduit runs

### Additional Costs:
- H-20 Loading and Cast Iron Covers
- Mounting Straps and Plates (see Page 5)
- Conduit Holes and Bosses (see Page 5)
- Tamper-Resistant Screws

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### Catalog Number

**ER 121212**

**ER 121210**

**ER 121008**

**ER 121004**

**ER 120804**

**ER 100604**

**ER 100606**

**ER 080404**

**ER 080406**

**ER 080804**

**ER 080806**

**ER 080808**

**ER 080810**

**ER 100606**

**ER 100806**

**ER 100808**

**ER 101004**

**ER 101006**

**ER 101008**

**ER 120404**

**ER 120604**

**ER 120606**

**ER 120804**

**ER 120806**

**ER 120808**

**ER 120810**

**ER 120104**

**ER 120106**

**ER 120108**

**ER 120120**

**ER 120124**

**ER 140804**

**ER 140806**

**ER 140808**

**ER 141004**

**ER 141006**

**ER 141206**

**ER 141408**

**ER 141410**

**ER 160808**

**ER 161008**

**ER 161206**

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### Approximate Iron Specs

**Weight**: Lbs

**Wall Thickness**: "

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### All boxes available with shallower depths.
Type FF Junction Boxes

Available in Cast Iron & Cast Aluminum

RAINTIGHT (UL LISTED) - WATERTIGHT (NEMA 4)

All box sizes available as Type ER

Type FF Junction Boxes are designed specifically for surface mounting as illustrated but may be flush mounted. Corner rib located under flange for additional strength. Smooth cover provides an attractive display. Available with checkerered cover. NEMA 4X (Alum. only) and NEMA 6 available at additional cost.

SURFACE INSTALLATION
CONDUIT SPACING

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<th>Conduit Size</th>
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CONDUIT THREADING

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<thead>
<tr>
<th>Conduit Size</th>
<th>3 Threads Per Inch</th>
<th>3⅜ Threads</th>
<th>5 Threads</th>
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<td>¾</td>
<td>18</td>
<td>11⅝</td>
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<td>3</td>
<td>8</td>
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UL requires 1/4" minimum wall thickness to maintain Water Tight standard.

SIDEWALL SPACING

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All dimensions displayed in inches
All dimensions are required minimums

JUNCTION BOX CROSS REFERENCE CHART

<table>
<thead>
<tr>
<th>Spring City</th>
<th>Eaton Crouse-Hinds</th>
<th>O-Z/Gedney</th>
<th>Appleton</th>
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<tbody>
<tr>
<td>FF</td>
<td>WJB</td>
<td>YF</td>
<td>WYF</td>
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<tr>
<td>ER</td>
<td>WJBF</td>
<td>YR</td>
<td>WYR</td>
</tr>
</tbody>
</table>
Junction Box Cut Sheet
Specify Dimensions and Equipment

DIMENSIONS
Box: Internal measurements
Cover: Sized to fit
Between Conduit Holes: Center to center
Between Conduit Hole and Box Edge: Center to internal edge

BOX VIEW
Cover Removed. Looking down into the box. Sides laid down and out.

BOX DIMENSIONS
*Length ______ inches
*Width ______ inches
*Depth ______ inches

COVER VIEW
Looking down at top side

LEGEND
A Bottom
B Middle
C Top

Directions: Please mark the selected additions and conduit hole dimensions on above drawing.
Locations that are not definitely dimensioned on drawing will be located at the discretion of Spring City Electrical Mfg. Co.

PLEASE CIRCLE ALL THAT APPLY

<table>
<thead>
<tr>
<th>Box Type</th>
<th>ER</th>
<th>FF</th>
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<tbody>
<tr>
<td>Box Material</td>
<td>Iron</td>
<td>Aluminum</td>
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<tr>
<td>Cover Type</td>
<td>Checkered</td>
<td>Smooth</td>
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<td>Cover Material</td>
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<tr>
<td>Cover Style</td>
<td>Flat Head</td>
<td>Pan Head</td>
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<tr>
<td>Additions</td>
<td>H-20 Vehicle Loading</td>
<td>Bosses</td>
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<tr>
<td>Mounting Straps</td>
<td>Steel</td>
<td>Aluminum</td>
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<tr>
<td>Conduit Holes</td>
<td>Slip</td>
<td>3 Threads</td>
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<td>Cover Lettering</td>
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<td>Notes</td>
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