Medium Voltage

PRODUCT CATALOG

2022 EDITION

15kV 25kV 35kV

Richards™ MANUFACTURING CO.

Richards™ Medium Voltage Products

Richards designs, manufactures, and tests Medium Voltage cable accessories for use with power cable and equipment rated through 35kV.

Our team is intimately involved in every step of the manufacturing process—from material development all the way through packaging. This allows us to control every aspect of our designs down to the smallest detail, to ensure the highest level of product performance.

We are committed to complementing our line of high quality products with unmatched customer support. Our services include custom kitting and dedicated stock level maintenance to ensure our customers receive products not only how they want them but when they need them.

In this Catalog

This catalog provides a thorough detailing of our wide variety of Medium Voltage Products. Most main product sections consist of features/advantages, ratings information, base components overview, and ordering information.

It is important to note, all ratings are shown as the industry minimum requirements as defined by applicable product standards. Many of our products are tested to higher levels (and thus rated to higher levels) than required. For details on the ratings and testing of a specific product, refer to Product Guides and Product Data Sheets which can be accessed by visiting our website or contacting our technical help team at the factory.

The reference section at the back of the catalog provides guidance for properly sizing components based on the power cable being utilized. Included are cable specification tables with industry standard minimum and maximum diameter over insulation for various voltages and conductor sizes.

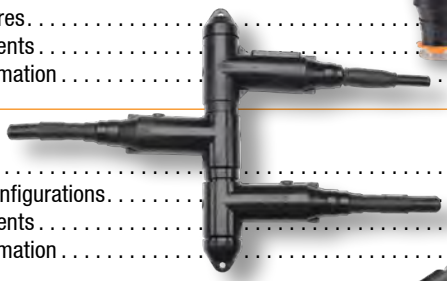
Our team is available to walk you through product selection and part number building, or to answer any additional questions. Contact our Support Team at 973-371-1771 or email sales@richards-mfg.com.

QUALITY MANAGEMENT SYSTEM
DNV·GL
ISO 9001:2015

USA

All of our Medium Voltage Products are designed, molded, and tested in the USA. Our designs exceed industry requirements to provide the highest level of quality and dependability.

CONTENTS



CONTENTS

continued

DISCONNECTABLE JOINTS

ACCESSORIES

REFERENCE

600/900A Deadbreak

- Fully Shielded/Deadfront design
- Available with aluminum or copper components
- Optional capacitive test point
- Large selection of accessories available for insulating, grounding, testing, etc.

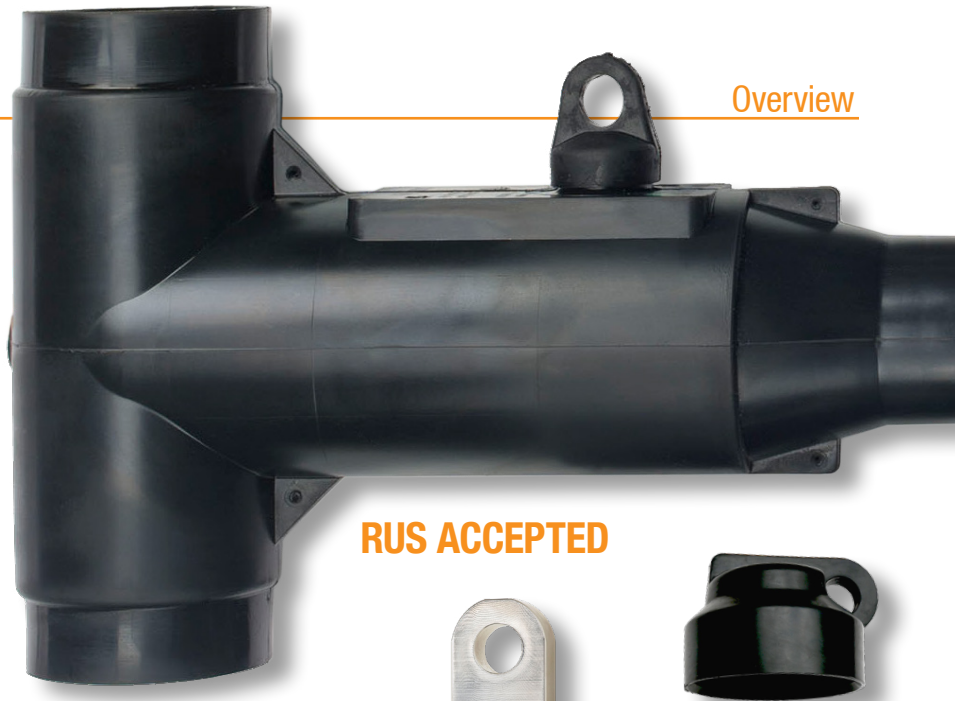
Designed and tested per the following industry standards:

- IEEE Std. 386: For Separable Insulated Connector Systems
- IEEE Std. 592: For Semiconducting Shields

Richards Manufacturing, Inc. | 517 Lyons Avenue, Irvington, NJ 07111 | 973.371.1771 | www.richards-mfg.com

600/900A DEADBREAK

Richards Deadbreak Elbows provide a convenient, modular means to terminate or splice power cables through 35kV. The Deadbreak Elbow features a mechanically robust construction from injection-molded EPDM. Assemblies utilize a high-torque, bolted connection making the Deadbreak Elbow ideal for highly-loaded areas or circuits with high fault currents. Deadbreak Elbow assemblies can be rated to a continuous current of either 600A or 900A depending on the components utilized. A wide variety of accessories are available for insulating, testing, grounding and more.



RUS ACCEPTED

Product Ratings

For your reference, IEEE ratings are provided below. Many of our products exceed these ratings. For product-specific information, see appropriate Product Data Sheet or contact the factory.

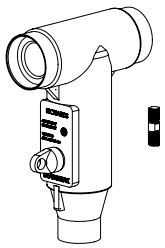
IEEE 386 - Industry Minimum Requirements			
Voltage Ratings			
Voltage Class, Phase-to-Phase	**15kV**	**25kV**	**35kV**
Maximum Operating Voltage – (phase-to-ground)	8.3kV	15.2kV	21.1kV
Corona Voltage Level – (partial discharge extinction voltage)	11kV	19kV	26kV
AC Withstand – (1 minute)	34kV	40kV	50kV
Impulse-Withstand Voltage – (BIL)	95kV	125kV	150kV

Continuous Current Ratings	
Aluminum	600A
Copper	900A

Short-Time Current Ratings	
Aluminum	25kA, 10c. and 10kA, 3s.
Copper	40kA, 10c. and 10kA, 3s.

OUR TESTING EXCEEDS INDUSTRY REQUIREMENTS. IEEE REQUIRES PARTIAL DISCHARGE PLUS A CHOICE OF AC OR IMPULSE WITHSTAND. RICHARDS RUNS ALL THREE TO ENSURE THE HIGHEST QUALITY.

AVAILABLE WITH 200KV BIL RATING



Deadbreak Elbow (without Test Point) and Aluminum Stud

62LCN1 — 15/25kV
63LCN1 — 35kV

Deadbreak Elbow (without Test Point) and Copper Stud

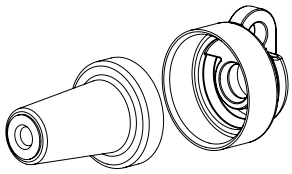
92LCN1 — 15/25kV
93LCN1 — 35kV

Deadbreak Elbow (with Test Point) and Aluminum Stud

62LCT1 — 15/25kV
63LCT1 — 35kV

Deadbreak Elbow (with Test Point) and Copper Stud

92LCT1 — 15/25kV
93LCT1 — 35kV



Aluminum Insulating Plug

P625HIP — 15/25kV
P635HIP — 35kV

Copper Insulating Plug

P925HIP — 15/25kV
P935HIP — 35kV

Aluminum Insulating Plug with installed Stud

P625HIP-S — 15/25kV
P635HIP-S — 35kV

Copper Insulating Plug with installed Stud

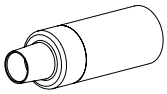
P925HIP-S — 15/25kV
P935HIP-S — 35kV

Aluminum Insulating Plug with loose Stud

P625HIP-LS — 15/25kV
P635HIP-LS — 35kV

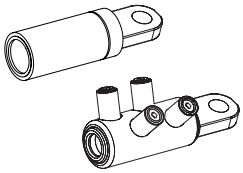
Copper Insulating Plug with loose Stud

P925HIP-LS — 15/25kV
P935HIP-LS — 35kV



Cable Adapter

P625CA-W — 15/25kV *Use TABLE W1 to select "W".*
P635CA-W — 35kV *Use TABLE W3 to select "W".*



Aluminum Compression or Shear Bolt Lug (Al/Cu Rated)

P6AL-X — 15/25/35kV *For Compression Lugs, use TABLE X to select "X". For Shear Bolt Lugs, use TABLE RX to select "X".*

Copper-top Compression Lug (Al/Cu Rated)

P7ALCU-X — 15/25/35kV *Use TABLE X to select "X".*

Copper Compression Lug (for use w/ copper conductors only)

P9CU-X — 15/25/35kV *Use TABLE X to select "X".*

For a 15/16" threaded lug, add "-15/16" to the end of the lug part number.

Sample Part Number

6	2	LC	N	2	LM	23	D	D
Current Ratings	Voltage Class	Product Series	Test Point	Kit Type	"W" Cable Adapter Size	"X" Lug Code	Shield Adapter	Jacket Seal

Current Ratings
- 6 = 600A (Aluminum HIP + Stud; Al/Cu rated lug)
- 7 = 600A (Copper HIP + Stud; Al/Cu rated Copper-Top Lug)
- 9* = 900A (Copper HIP + Stud; Cu rated Compression Lug OR Al/Cu rated Shear Bolt Lug)

Voltage Class
- 2 = 15/25kV
- 3 = 35kV

Test Point
- N = None
- T = W/ Capacitive Test-Point

Kit Type
- 0 = Elbow Housing only
- 1 = Elbow Housing and Stud
- 2 = Elbow Housing, Stud, and Insulating Plug

"W" Cable Adapter Size / "X" Lug Code

No Cable Adapter/Lug:
Leave both blank.

Compression Lug Kit:
Select Cable Adapter Size using TABLE W1 or W3 (depending on voltage class). Select **Lug Code** using TABLE X.

Range Taking Shear Bolt Lug Kit*:
Select **Cable Adapter Size** using TABLE W1 or W3 (depending on voltage class). Select **Lug Code** using TABLE RX.

Shield Adapter / Jacket Seal

No Shield Adapter/Jacket Seal:
Leave both blank.

Shield Adapter/Jacket Seal Kit:
Select **Kit Suffix** from the Jacket Seal/Shield Adapter section in Accessories. For your convenience, common options are listed in the **Suffix Table** below.

Suffix Table

Kit Suffix	Part Number (If ordering separately)	Description
AC	PCRK005-1	Cold Shrink Seal (for Cable Adapter Size E-J and all Loadbreak Elbow sizes)
AD	PCRK005-2	Cold Shrink Seal (for Cable Adapter Size K-PQ)
AG	PCRK005-3	Cold Shrink Seal (for 35kV Cables 1250kcmil and larger)
BC	PCRK16-2	Cold Shrink and #6 AWG Tinned Copper Braid w/ Constant Force Spring (for Cable Adapter Size E-J and all Loadbreak Elbow sizes)
DD	PCRK12-3	Cold Shrink and #4 AWG Tinned Copper Braid w/ Constant Force Spring (for Cable Adapter Size K-PQ)
DG	PCRK12-6	Cold Shrink and #4 AWG Tinned Copper Braid w/ Constant Force Spring (for 35kV Cables 1250kcmil and larger)

* *Range Taking Shear Bolt lugs are only available in aluminum.*

Sample Part Number *is a 15/25kV 600A Deadbreak Elbow kit. Kit includes Deadbreak Elbow (without Test Point), Stud, Insulating Plug, Cable Adapter (size LM), Aluminum Compression Lug for 750 kcmil Strd/Compr, and a PCRK12-3 Jacket Seal/Shield Adapter kit.*

CSH™ Series - Cold Shrink Hammerhead

- Immensely simplifies installation and increases reliability
- Eliminates need for cable adapter and separate jacket seal
- Fully Shielded/Deadfront design
- Optional capacitive test point

Designed and tested per the following industry standards:

- IEEE Std. 386: For Separable Insulated Connector Systems
- IEEE Std. 592: For Semiconducting Shields

CSH SERIES - COLD SHRINK HAMMERHEAD

For over 70 years, Richards has remained dedicated to manufacturing high-quality, innovative products for electrical distribution systems. The Cold Shrink Hammerhead epitomizes this legacy by introducing a truly unique, robust solution for terminating and splicing medium voltage power cable. We've taken our industry-leading 600/900A Deadbreak Elbow design and given it a cutting-edge transformation.

- **All-In-One Solution:** The CSH is range-taking and includes an integral jacket seal, providing a complete solution in a simple package. Three separate components have been elegantly combined into a single design.
- **100% EPDM:** Richards Cold Shrink Products are molded from 100% EPDM, a proven material in underground electrical applications for decades. This proprietary formulation of Cold Shrink EPDM is produced in-house. To achieve maximum durability in underground environments, the CSH features a fully-integrated, oil-resistant EPDM jacket that provides outstanding mechanical impact/tear resistance.
- **Easy Installation:** We've optimized our design to minimize installation time, complexity, and overall cost. No more cable adapter and no more separate jacket seal kit. The cold shrink Cable Entrance eliminates problems that arise when sliding traditional interference-fit Deadbreak elbows into position. This ergonomic improvement substantially simplifies positioning/aligning the lug in the CSH housing.
- **Designed, Molded & Tested in the USA:** Our team is intimately involved in everything from material development, product and mold design, and production. This allows us to control every aspect of the design, down to the smallest detail.

Product Ratings

For your reference, IEEE ratings are provided below. Many of our products exceed these ratings. For product-specific information, see appropriate Product Data Sheet or contact the factory.

IEEE 386 - Industry Minimum Requirements			
Voltage Ratings			
Voltage Class, Phase-to-Phase	**15kV**	**25kV**	**35kV**
Maximum Operating Voltage – (phase-to-ground)	8.3kV	15.2kV	21.1kV
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AC Withstand – (1 minute)	34kV	40kV	50kV
Impulse-Withstand Voltage – (BIL)	95kV	125kV	150kV

Continuous Current Ratings	
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Copper	900A

Short-Time Current Ratings	
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Copper	40kA, 10c. and 10kA, 3s.

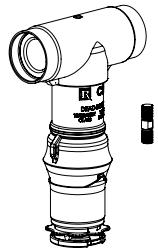
SCAN QR CODE TO WATCH INSTALLATION VIDEO

OUR TESTING EXCEEDS INDUSTRY REQUIREMENTS. IEEE REQUIRES PARTIAL DISCHARGE PLUS A CHOICE OF AC OR IMPULSE WITHSTAND. RICHARDS RUNS ALL THREE TO ENSURE THE HIGHEST QUALITY.

AVAILABLE WITH 200KV BIL RATING

To Schedule a Demonstration Contact Your Local Sales Rep

1. **CONDUCTOR LUGS:** The CSH Series is available with a variety of conductor lugs. We offer a range-taking shear bolt option, as well as the traditional 600 or 900A compression connector. One of the most impressive improvements of the CSH is the ease with which the housing can be installed onto the prepared cable/installed lug. Without having to overcome any interference-fit (remember, we've obsoleted the cable adapter), positioning the lug properly is incredibly easy.
2. **IEEE 386 INTERFACE:** The 600/900A Deadbreak interface accepts the appropriate IEEE Interface (15/25kV IEEE 386 Interface 11 or 35kV IEEE 386 Interface 13) components, such as Apparatus Bushings, Elbow Tap Plugs, Hammerhead Insulating Plugs (HIPs) and more.
3. **CAPACITIVE TEST POINT:** The CSH Series is available with an optional capacitive test point. This enables system operators to utilize suitable equipment to test for voltage, or install a faulted circuit indicator (FCI).
4. **EPDM JACKET:** The entire CSH Series is molded from a proprietary EPDM formulation. This material has excellent mechanical impact/tear resistance—an important trait given the harsh conditions of the underground environment. The bonded outer jacket is semi-conductive, making the CSH fully shielded.
5. **CABLE ENTRANCE:** The Cable Entrance of the CSH is shrinkable, obsoleting the cable adapter. This eliminates the performance risk associated with cable adapter positioning and makes installation markedly more ergonomic. This cold shrink Cable Entrance also allows the CSH to cover a range of cable sizes, as laid out in the selection tables. With fewer components and range-taking capabilities, customers are able to reduce inventory.
6. **EASY-TO-REMOVE CORE:** Hold-out cores that rely on grease or a ribbon/spiral design can be unreliable and messy. Spiral holdouts can be difficult to remove and may prematurely collapse. Richards product development engineers created a compact core design that is easy to eject, and performs consistently across a variety of installation environments. Once ejected, the Core separates into halves which can be recycled.
7. **INTEGRAL JACKET SEAL:** Once the core is removed, a jacket seal is deployed over sealing mastic, completing the jacket restoration without the need for a separate component.

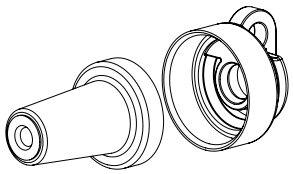


CSH (without Test Point) and Aluminum Stud
62CSHN1 — 15/25kV
63CSHN1 — 35kV

CSH (with Test Point) and Aluminum Stud
62CSHT1 — 15/25kV
63CSHT1 — 35kV

CSH (without Test Point) and Copper Stud
92CSHN1 — 15/25kV
93CSHN1 — 35kV

CSH (with Test Point) and Copper Stud
92CSHT1 — 15/25kV
93CSHT1 — 35kV



Aluminum Insulating Plug
P625HIP — 15/25kV
P635HIP — 35kV

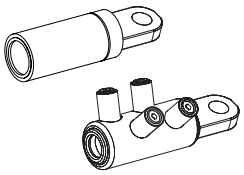
Aluminum Insulating Plug with installed Stud
P625HIP-S — 15/25kV
P635HIP-S — 35kV

Aluminum Insulating Plug with loose Stud
P625HIP-LS — 15/25kV
P635HIP-LS — 35kV

Copper Insulating Plug
P925HIP — 15/25kV
P935HIP — 35kV

Copper Insulating Plug with installed Stud
P925HIP-S — 15/25kV
P935HIP-S — 35kV

Copper Insulating Plug with loose Stud
P925HIP-LS — 15/25kV
P935HIP-LS — 35kV



Aluminum Compression or Shear Bolt Lug (Al/Cu Rated)
P6AL-X — 15/25/35kV *For Compression Lugs, use TABLE X to select "X". For Shear Bolt Lugs, use TABLE RX to select "X".*

Copper-top Compression Lug (Al/Cu Rated)
P7ALCU-X — 15/25/35kV *Use TABLE X to select "X".*

Copper Compression Lug (for use w/ copper conductors only)
P9CU-X — 15/25/35kV *Use TABLE X to select "X".*

For a 15/16" threaded lug, add "-15/16" to the end of the lug part number.

Sample Part Number

6	2	CSH	T	2	P	18	G
Current Ratings	Voltage Class	Product Series	Test Point	Kit Type	"Z" Elbow Size*	"X" Lug Code	Shield Adapter

Current Ratings

- **6** = 600A (Aluminum HIP + Stud; Al/Cu rated lug)
- **7** = 600A (Copper HIP + Stud; Al/Cu rated Copper-Top Lug)
- **9**** = 900A (Copper HIP + Stud; Cu rated Compression Lug OR Al/Cu rated Shear Bolt Lug)

Voltage Class

- **2** = 15/25kV
- **3** = 35kV

Test Point

- **N** = None
- **T** = W/ Capacitive Test-Point

Kit Type

- **1** = CSH Housing and Stud
- **2** = CSH Housing, Stud, and Insulating Plug

Elbow Size* / Lug Code

Elbow Only (No Lug):
Select **Elbow Size** (**O**, **P**, or **Q**) using USE RANGE-25CSH TABLE or USE RANGE-35CSH TABLE (depending on voltage class). Leave **Lug Code** blank.

Compression Lug Kit:
Select **Elbow Size** (**O**, **P**, or **Q**) using USE RANGE-25CSH TABLE or USE RANGE-35CSH TABLE (depending on voltage class). Select **Lug Code** using TABLE X.

Range Taking Kit w/ Shear Bolt Lug:**
Select **Elbow Size** + **Lug Code** using TABLE XRA-25CSH or TABLE XRA-35CSH (depending on voltage class).

Shield Adapter

Note: Leave blank if Shield Adapter is not needed.

- **G** = Tinned Copper Braid w/ Solder Block and Constant Force Spring

Braid size is #6 for housing size "O" and #4 for housing sizes "P" and "Q".

* *35kV CSH is available in sizes P and Q only.*
** *Range Taking Shear Bolt Lugs are only available in aluminum.*

Sample Part Number *is a 15/25kV 600A CSH kit. Kit includes Size "P" CSH (with Test Point), Stud, Insulating Plug, Aluminum Compression Lug for 500 kcmil Strd/Compr, and a PCRK-GA-05 Shield Adapter kit.*

R Stack

- Integrated Deadbreak Elbow with Connecting Plug
- Factory-assembled and factory-tested
- Significantly shortens stack height
- Reduces assembly force and risk of cross-threading
- Available in aluminum or copper

Designed and tested per the following industry standards:

- IEEE Std. 386: For Separable Insulated Connector Systems
- IEEE Std. 592: For Semiconducting Shields

R Stack

What is an R-Stack?

The R-Stack is an innovative design that combines a Deadbreak Connecting Plug with a Deadbreak Elbow.

And why would that be something I am interested in?

If you connect Deadbreak Elbows together the R-Stack will reduce the number of components, interfaces, effort and stack height. This results in a simpler and quicker installation with less chance of contamination or installation error. It also reduces the number of components stored in inventory.

You said it reduces the stack height. This is important to me because our manholes and cabinets are very congested and compact.

I am glad you appreciate the stack height savings. On the next page, you will see configuration drawings showing just how much room you'll be saving.

But the height savings aren't the only advantage. Aside from being quicker and easier because there are fewer components, there's also significantly less force to overcome when installing R-Stacks. This is because there's no Connecting Plug to torque down while holding the mating component in place. Also, the more loose components, the greater the chance of damage or contamination before/during installation. So the R-stack significantly enhances reliability.

In a few pages, you will find drawings comparing R-Stacks to "standard" elbows. If you don't see the configuration you're interested in, contact us and we'll be glad to help.

AVAILABLE WITH 200KV BIL RATING

Product Ratings

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IEEE 386 - Industry Minimum Requirements			
Voltage Ratings			
Voltage Class, Phase-to-Phase	**15kV**	**25kV**	**35kV**
Maximum Operating Voltage – (phase-to-ground)	8.3kV	15.2kV	21.1kV
Corona Voltage Level – (partial discharge extinction voltage)	11kV	19kV	26kV
AC Withstand – (1 minute)	34kV	40kV	50kV
Impulse-Withstand Voltage – (BIL)	95kV	125kV	150kV

Continuous Current Ratings	
Aluminum	600A
Copper	900A

Short-Time Current Ratings	
Aluminum	25kA, 10c. and 10kA, 3s.
Copper	40kA, 10c. and 10kA, 3s.

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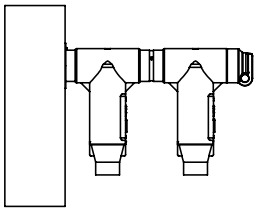
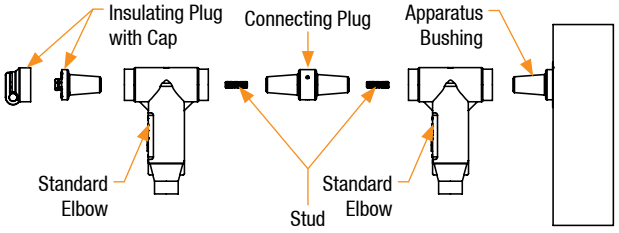
15/25kV Apparatus Bushing Installation

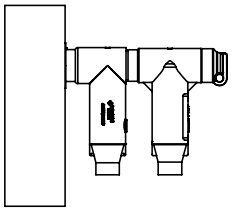
Standard

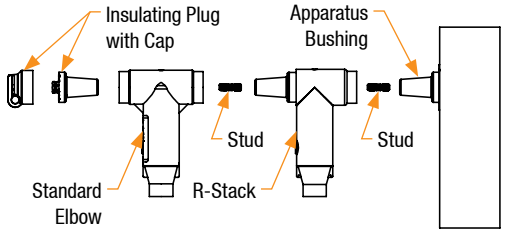




6 Total Components

R-Stack

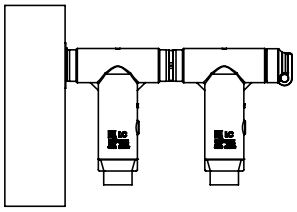


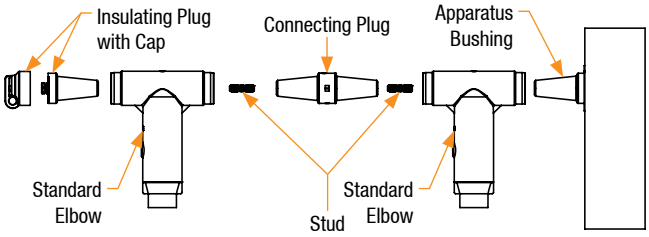


5 Total Components

35kV Apparatus Bushing Installation

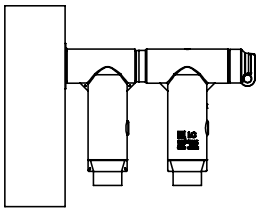
Standard

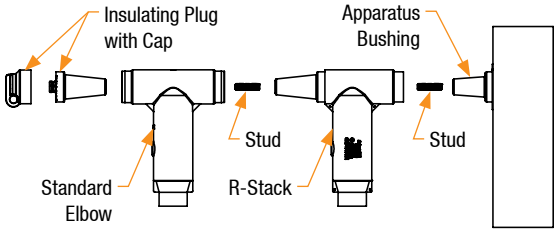




6 Total Components

R-Stack

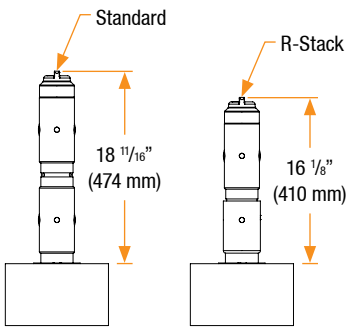




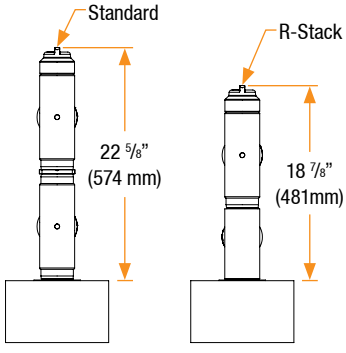
5 Total Components

Stack Height Comparison - Standard vs. R-Stack

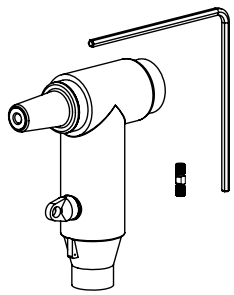
15/25kV



35kV



FOR ALTERNATE STACKING OR SPLICING DIMENSIONS CONTACT THE FACTORY.

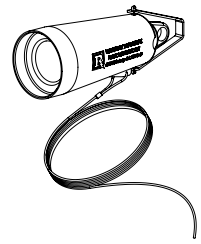


Aluminum R-Stack (without Test Point) and Stud
62CHNO — 15/25kV
63CHNO— 35kV

Aluminum R-Stack (with Test Point) and Stud
62CHTO — 15/25kV
63CHTO — 35kV

Copper R-Stack (without Test Point) and Stud
92CHNO — 15/25kV
93CHNO— 35kV

Copper R-Stack (with Test Point) and Stud
92CHTO — 15/25kV
93CHTO — 35kV

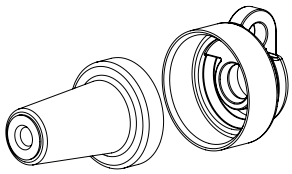


Insulating Cap (without Test Point) and loose Stud
P625ICN — 15/25kV

Insulating Cap (with Test Point) and loose Stud
P625IC — 15/25kV

Insulating Cap (without Test Point) and installed Stud
P625ICN-S — 15/25kV
P635IC — 35kV *Note: Stud is molded-in*

Insulating Cap (with Test Point) and installed Stud
P625IC-S — 15/25kV



Aluminum Insulating Plug
P625HIP — 15/25kV
P635HIP — 35kV

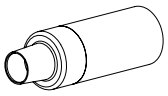
Aluminum Insulating Plug with installed Stud
P625HIP-S — 15/25kV
P635HIP-S — 35kV

Aluminum Insulating Plug with loose Stud
P625HIP-LS — 15/25kV
P635HIP-LS — 35kV

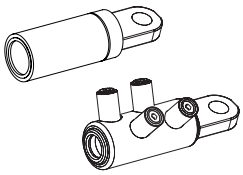
Copper Insulating Plug
P925HIP — 15/25kV
P935HIP — 35kV

Copper Insulating Plug with installed Stud
P925HIP-S — 15/25kV
P935HIP-S — 35kV

Copper Insulating Plug with loose Stud
P925HIP-LS — 15/25kV
P935HIP-LS — 35kV



Cable Adapter
P625CA-W — 15/25kV *Use TABLE W1 to select "W".*
P635CA-W — 35kV *Use TABLE W3 to select "W".*



Aluminum Compression or Shear Bolt Lug (Al/Cu Rated)
P6AL-X — 15/25/35kV *For Compression Lugs, use TABLE X to select "X". For Shear Bolt Lugs, use TABLE RX to select "X".*

Copper-top Compression Lug (Al/Cu Rated)
P7ALCU-X — 15/25/35kV *Use TABLE X to select "X".*

Copper Compression Lug (for use w/ copper conductors only)
P9CU-X — 15/25/35kV *Use TABLE X to select "X".*

For a 15/16" threaded lug, add "-15/16" to the end of the lug part number.

Sample Part Number

6	2	C	H	N	2	LM	23	D	D
Current Ratings	Voltage Class		Fastener Type	Test Point	Kit Type	"W" Cable Adapter Size	"X" Lug Code	Shield Adapter	Jacket Seal

6 = 600A (Aluminum HIP + Stud; Al/Cu rated lug)
7 = 600A (Copper HIP + Stud; Al/Cu rated Copper-Top Lug)
9* = 900A (Copper HIP + Stud; Cu rated Compression Lug OR Al/Cu rated Shear Bolt Lug)

2 = 15/25kV
3 = 35kV

H = Female fastener with through-broach used with standard lug

N = None
T = W/ Capacitive Test-Point

0 = R-Stack and Stud
1 = R-Stack, Insulating Cap, Insulating Plug, and Stud
2 = R-Stack, Insulating Plug and Stud

No Cable Adapter/Lug:
Leave both blank.
Compression Lug Kit:
Select **Cable Adapter Size** using TABLE W1 or W3 (depending on voltage class). Select **Lug Code** using TABLE X.
Range Taking Shear Bolt Lug Kit*:
Select **Cable Adapter Size** using TABLE W1 or W3 (depending on voltage class). Select **Lug Code** using TABLE RX.

No Shield Adapter/Jacket Seal:
Leave both blank.
Shield Adapter/Jacket Seal Kit:
Select **Kit Suffix** from the Jacket Seal/Shield Adapter section in Accessories. For your convenience, common options are listed in the **Suffix Table** below.

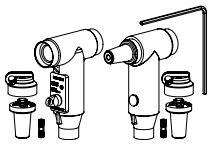
Suffix Table

Kit Suffix	Part Number (If ordering separately)	Description
AC	PCRK005-1	Cold Shrink Seal (for Cable Adapter Size E-J and all Loadbreak Elbow sizes)
AD	PCRK005-2	Cold Shrink Seal (for Cable Adapter Size K-PQ)
AG	PCRK005-3	Cold Shrink Seal (for 35kV Cables 1250kcmil and larger)
BC	PCRK16-2	Cold Shrink and #6 AWG Tinned Copper Braid w/ Constant Force Spring (for Cable Adapter Size E-J and all Loadbreak Elbow sizes)
DD	PCRK12-3	Cold Shrink and #4 AWG Tinned Copper Braid w/ Constant Force Spring (for Cable Adapter Size K-PQ)
DG	PCRK12-6	Cold Shrink and #4 AWG Tinned Copper Braid w/ Constant Force Spring (for 35kV Cables 1250kcmil and larger)

P650DAT INSTALLATION TOOL INCLUDED

* *Range Taking Shear Bolt Lugs are only available in aluminum.*

Sample Part Number *is a 15/25kV 600A R-Stack kit. Kit includes R-Stack (without Test Point), Stud, Insulating Plug, Cable Adapter (size LM), Aluminum Compression Lug for 750 kcmil Strd/Compr, and a PCRK12-3 Jacket Seal/Shield Adapter kit.*

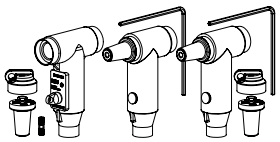


R-Stack (without Test Point), Standard Elbow (with Test Point), Hex Tool, 2 Insulating Plugs and 1 Stud

62BJT2 — 15/25kV
63BJT2 — 35kV

R-Stack (without Test Point), Standard Elbow (without Test Point), Hex Tool, 2 Insulating Plugs and 1 Stud

62BJN2 — 15/25kV
63BJN2 — 35kV

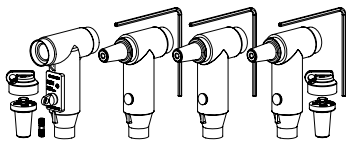


2 R-Stacks (without Test Points), Standard Elbow (with Test Point), 2 Hex Tools, 2 Insulating Plugs and 1 Stud

62BJT3 — 15/25kV
63BJT3 — 35kV

2 R-Stacks (without Test Points), Standard Elbow (without Test Point), 2 Hex Tools, 2 Insulating Plugs and 1 Stud

62BJN3 — 15/25kV
63BJN3 — 35kV



3 R-Stacks (without Test Points), Standard Elbow (with Test Point), 3 Hex Tools, 2 Insulating Plugs and 1 Stud

62BJT4 — 15/25kV
63BJT4 — 35kV

3 R-Stacks (without Test Points), Standard Elbow (without Test Point), 3 Hex Tools, 2 Insulating Plugs and 1 Stud

62BJN4 — 15/25kV
63BJN4 — 35kV

Note: All R-Stacks are supplied with "H" fastener. Subunit kits should be ordered separately.

FOR ELBOW SPLICE KITS WITH CONNECTING PLUGS AND TRADITIONAL ELBOWS, SEE ACCESSORIES

These Kits do not include Cable Adapters or Lugs. Please order them separately as components or in Subunit Kits.
Kits listed above are supplied with aluminum components. To order with copper components, replace "6" with "9".

Deadbreak Extension Adapter

- Extension length facilitates repair and equipment replacements/upgrades
- Fully Shielded/Deadfront design
- Compatible with existing standard IEEE 386 accessories

Designed and tested per the following industry standards:

- IEEE Std 386: For Separable Insulated Connector Systems
- ANSI C119.4: For Electric Connectors
- IEEE Std 592: For Exposed Semiconducting Shields

DEADBREAK EXTENSION ADAPTER

The Richards Deadbreak Elbow Extension Adapter provides a robust solution for extension of medium voltage power cable. Applications include extending a connection to reach new equipment (e.g. live front to dead front conversion) and replacing damaged cable/accessories. The Adapter is a specialized bus which is designed to interface with a Deadbreak Elbow housing on one side, and a Disconnectable Joint Sleeve on the other (the 35kV Adapter is supplied with a custom Deadbreak Elbow pre-installed). Richards JSCS Cold Shrink or traditional Richards Disconnectable Joint Sleeves can be utilized with the Adapter.
The Deadbreak Elbow housing mates with the equipment connection (switchgear/ transformer bushing, deadbreak junction, etc.) and the Disconnectable Joint Sleeve provides an in-line transition to the power cable.

- Injection Molded and Peroxide Cured
- Aluminum contact overmolded with EPDM rubber
- Extension length facilitates repair and equipment replacements/ upgrades
- Molded top interface designed to mate with Deadbreak Elbow housing (35kV supplied pre-installed)
- Bottom Disconnectable Joint interface allows for in-line connection
- Factory-installed Lug
- 18 7/8" of extension length

THE 35KV DE IS SUPPLIED WITH A CUSTOM DEADBREAK ELBOW PRE-INSTALLED

35kV DE

Product Ratings

For your reference, IEEE ratings are provided below. Many of our products exceed these ratings. For product-specific information, see appropriate Product Data Sheet or contact the factory.

OUR TESTING EXCEEDS INDUSTRY REQUIREMENTS. IEEE REQUIRES PARTIAL DISCHARGE PLUS A CHOICE OF AC OR IMPULSE WITHSTAND. RICHARDS RUNS ALL THREE TO ENSURE THE HIGHEST QUALITY.

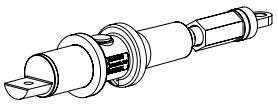
IEEE 386 - Industry Minimum Requirements			
Voltage Ratings			
Voltage Class, Phase-to-Phase	**15kV**	**25kV**	**35kV**
Maximum Operating Voltage – (phase-to-ground)	8.3kV	15.2kV	21.1kV
Corona Voltage Level – (partial discharge extinction voltage)	11kV	19kV	26kV
AC Withstand – (1 minute)	34kV	40kV	50kV
Impulse-Withstand Voltage – (BIL)	95kV	125kV	150kV

Continuous Current Ratings	
Aluminum	600A

Short-Time Current Ratings	
Aluminum	25kA, 10c. and 10kA, 3s.

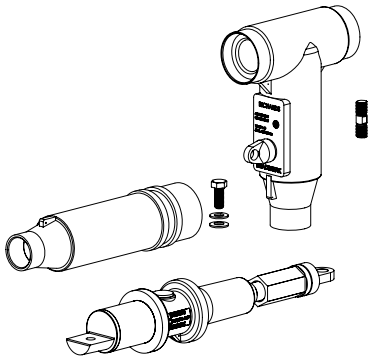
1. **DEADBREAK ELBOW:** The 15/25/28kV DE can be installed with any Deadbreak Elbow compatible with IEEE 386 interface 17 cable adapters. A 62LC is shown for reference. The 35kV DE is supplied with a custom Deadbreak Elbow pre-installed.
2. **PRE-INSTALLED LUG:** A pre-installed lug provides easy installation with any compatible connector. Available with either Tinned Aluminum or Copper Top lugs.
3. **TIN-PLATED HIGH CONDUCTIVITY ALUMINUM CONTACT:** This Aluminum contact is overmolded with insulation and has a cross section equivalent to a 1500 kcmil Aluminum conductor.
4. **IEEE 386-2016 INTERFACE 17:** The integral molded insulation and conductive cuff act as a pre-installed cable adapter. These overmolded rubber layers form a "simulated" cable adapter for proper fit with Deadbreak Elbows compatible with IEEE 386 interface 17.
5. **EPDM INSULATION:** The same high-quality rubber insulation that is found in all Richards medium voltage cable accessories.
6. **SEMI-CONDUCTIVE JACKET:** This semi-conductive peroxide-cured EPDM rubber jacket ensures compliance with IEEE Std. 592: Semiconducting Shields.
7. **STANDARD DISCONNECTABLE JOINT INTERFACE:** The bottom connection of the DE features an IEEE 386 interface 16 connection, for easy integration with disconnectable joint systems. This interface, in conjunction with compatible Disconnectable Joint Sleeves, accepts a wide-range of conductor sizes.
8. **COMPATIBLE WITH STANDARD DISCONNECTABLE JOINT SLEEVE:** The DE can be installed with any Interface 16 compatible joint. A JSCS Series sleeve is shown for reference.

Note: Bus is equivalent to 1500 kcmil aluminum cable.



Deadbreak Elbow Extension Adapter

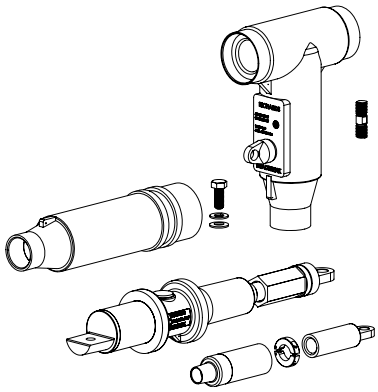
P625DE0 — 15/25kV
P635DE0 — 35kV *Note: Custom Deadbreak Elbow is supplied pre-installed*



Deadbreak Elbow Extension Kit with Adapter, Elbow, Stud, Sleeve, and Bolt

P625DE1 — 15/25kV
P635DE1 — 35kV *Note: Custom Deadbreak Elbow is supplied pre-installed*

To order with JSCS Series Cold Shrink Sleeve and Barrier Bolt, add "SZ" to part number. To specify "Z" (sleeve size) see USE RANGE-JSCS TABLE.

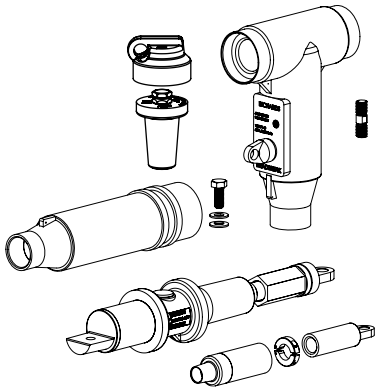


Deadbreak Elbow Extension Kit with Adapter, Elbow, Stud, Sleeve, Bolt, Cable Adapter, Retaining Ring, and Lug

P625DE2WX — 15/25kV
P635DE2WX — 35kV *Note: Custom Deadbreak Elbow is supplied pre-installed*

To specify "WX" follow instruction for selecting "W" and "X" on the Traditional Pre-molded Joint — Ordering Information Page.

To order with JSCS Series Cold Shrink Sleeve and Barrier Bolt, replace "W" with "SZ." To specify "ZX" follow instructions for selecting "Z" and "X" on the JSCS Series — Ordering Information Page.



Deadbreak Elbow Extension Kit with Adapter, Elbow, Stud, Sleeve, Bolt, Cable Adapter, Retaining Ring, HIP, and Lug

P625DE3WX — 15/25kV
P635DE3WX — 35kV *Note: Custom Deadbreak Elbow is supplied pre-installed*

To specify "WX" follow instruction for selecting "W" and "X" on the Traditional Pre-molded Joint — Ordering Information Page.

To order with JSCS Series Cold Shrink Sleeve and Barrier Bolt, replace "W" with "SZ." To specify "ZX" follow instructions for selecting "Z" and "X" on the JSCS Series — Ordering Information Page.

THE 15/25/28KV DE IS COMPATIBLE WITH OTHER ELBOWS, SUCH AS THE R-800 AND R-STACK. CONTACT THE FACTORY FOR KIT OPTIONS.
THE 35KV DE IS SUUPLIED WITH A CUSTOM DEADBREAK ELBOW PRE-INSTALLED.

600/900A Deadbreak Junctions

- Available in 2, 3, or 4-way configuration
- Available w/ aluminum or copper contacts
- Optional U-Straps or stainless steel mounting bracket
- Configured in 4” or 6” interface spacing

Designed and tested per the following industry standards:

- IEEE Std. 386: For Separable Insulated Connector Systems
- IEEE Std. 592: For Semiconducting Shields

Product Ratings

For your reference, IEEE ratings are provided below. Many of our products exceed these ratings. For product-specific information, see appropriate Product Data Sheet or contact the factory.

IEEE 386 - Industry Minimum Requirements			
Voltage Ratings			
Voltage Class, Phase-to-Phase	**15kV**	**25kV**	**35kV**
Maximum Operating Voltage – (phase-to-ground)	8.3kV	15.2kV	21.1kV
Corona Voltage Level – (partial discharge extinction voltage)	11kV	19kV	26kV
AC Withstand – (1 minute)	34kV	40kV	50kV
Impulse-Withstand Voltage – (BIL)	95kV	125kV	150kV

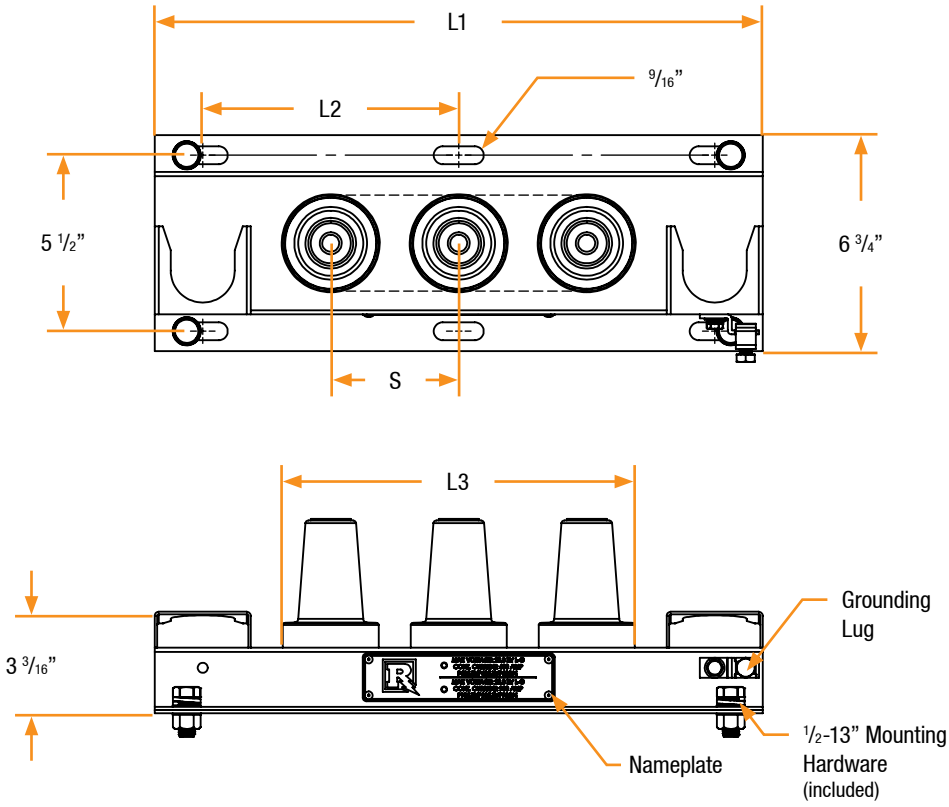
Continuous Current Ratings	
Aluminum	600A
Copper	900A

Short-Time Current Ratings	
Aluminum	25kA, 10c. and 10kA, 3s.
Copper	40kA, 10c. and 10kA, 3s.

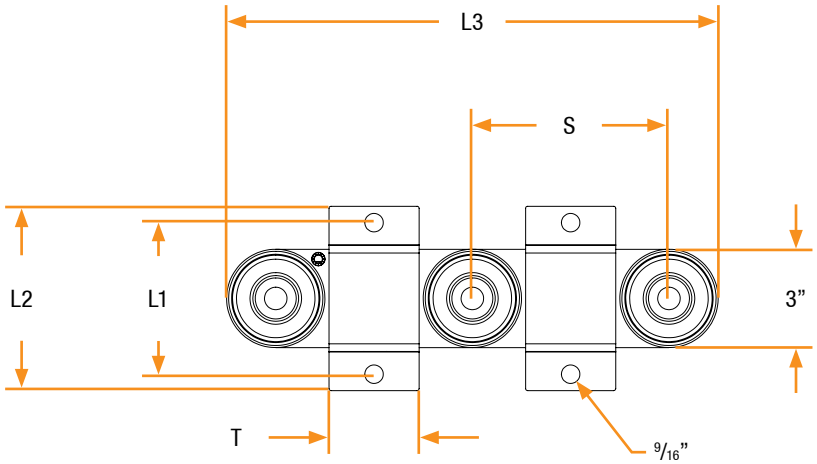
OUR TESTING EXCEEDS INDUSTRY REQUIREMENTS. IEEE REQUIRES PARTIAL DISCHARGE PLUS A CHOICE OF AC OR IMPULSE WITHSTAND. RICHARDS RUNS ALL THREE TO ENSURE THE HIGHEST QUALITY.

AVAILABLE WITH 200KV BIL RATING

Junctions Sizing for Brackets				
# OF POSITIONS	SPACING (S)	L1	L2	L3
2	4”	15”	6”	7”
	6”	21”	9”	9”
3	4”	19”	8”	11”
	6”	27”	12”	15”
4	4”	23”	10”	15”
	6”	33”	15”	21”

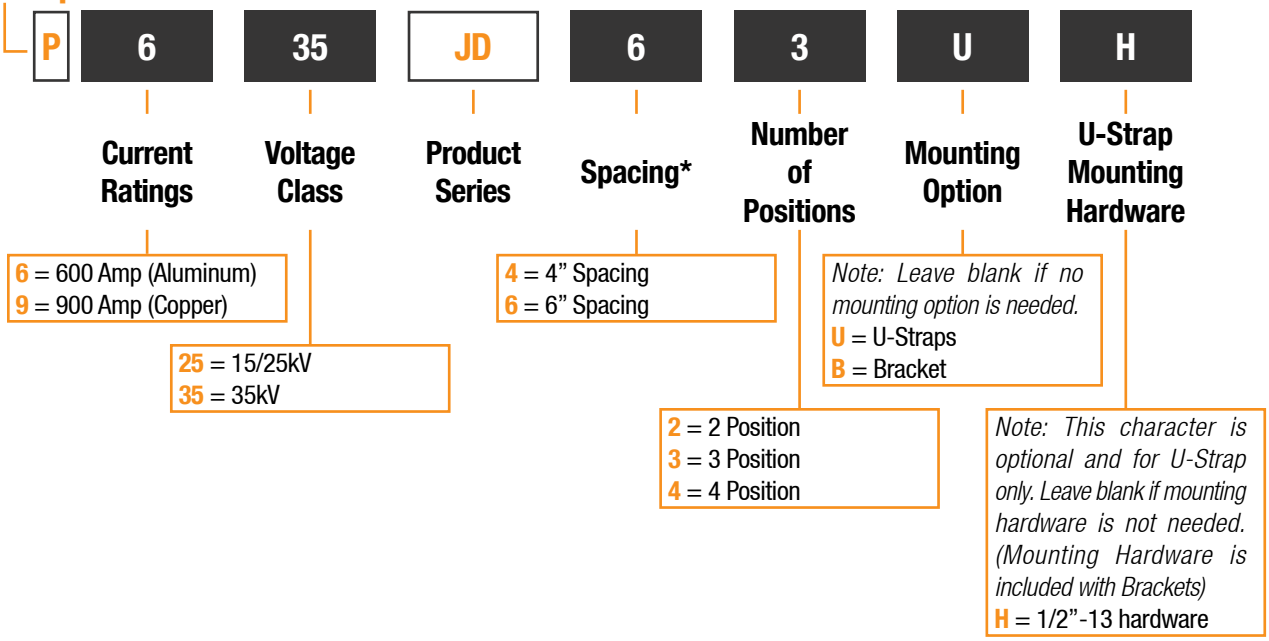


Junctions Sizing for U-Straps					
# OF POSITIONS	SPACING (S)	T	L1*	L2	L3
2	4”	2 3/4”	4 5/8”	5 5/8”	7”
	6”	2 3/4”	4 5/8”	5 5/8”	9”
3	4”	2 3/4”	4 5/8”	5 5/8”	11”
	6”	2 3/4”	4 5/8”	5 5/8”	15”
4	4”	2 3/4”	4 5/8”	5 5/8”	15”
	6”	2 3/4”	4 5/8”	5 5/8”	21”



* *U-Straps for 4” spaced Junctions are available with 5” hole to hole spacing. Contact factory for more information.*

Sample Part Number



* 4" spacing is typical for 25kV installations; 6" spacing is typical for 35kV installations.

Notes: Add -S to the end of the number to include a factory-installed stud.
To Order a mounting bracket only contact the factory.

Sample Part Number *is a 35kV 600A Deadbreak Junction kit. Kit includes 3-Position Deadbreak Junction with 6" spacing, U-Straps, and 1/2-13" Mounting Hardware.*

Stack Surge Arrester

- Fully Shielded/Deadbreak Design
- Utilizes gapless MOV arrester block technology
- Installable in two configurations

Designed and tested per the following industry standards:

- IEEE Std. 386: For Separable Insulated Connector Systems
- IEEE Std. C62.11: For Metal Oxide Surge Arresters for AC Power Circuits

600A 35KV R-STACK ARRESTER

The 35kV R-Stack Surge Arrester is an ultra-efficient way to protect underground cables/equipment from harmful over-voltages. Our Arrester is equipped with gapless Metal Oxide Varistor (MOV) technology, and assembled within a fully shielded, submersible EPDM housing. By utilizing a Deadbreak R-Stack Elbow housing, several critical advantages are afforded:

- The R-Stack Arrester eliminates the need for Loadbreak surge arresters, 600A to 200A Reducing Tap Plugs, Connecting Plugs, and Bushing Extenders. These components can be difficult to install and expensive. Additionally, having fewer required line items simplifies procurement and on-site material handling.
- The R-Stack Arrester has a male Deadbreak interface molded into the Elbow itself. As a result of this integral design, the overall stack height of an R-Stack Arrester installed on a Deadbreak Elbow is significantly shorter than other configurations on the market.
- Having fewer components/interfaces reduces the chance of improper installation—for example, cross-threading or contamination.
- Installing fewer components simplifies assembly procedures and cuts down on total installation time.

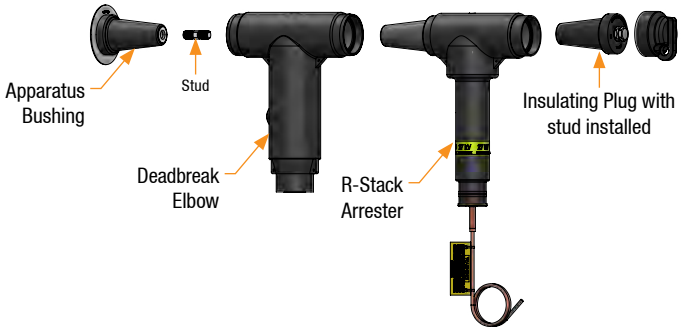
Product Ratings

For your reference, IEEE ratings are provided below. Many of our products exceed these ratings. For product-specific information, see appropriate Product Data Sheet or contact the factory.

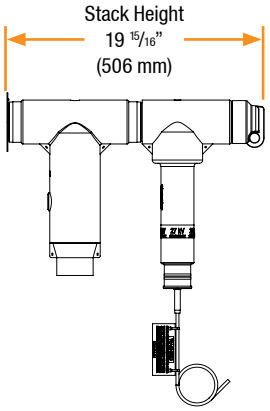
IEEE 386 - Industry Minimum Requirements	
Voltage Ratings	
Voltage Class, Phase-to-Phase	**35kV**
Corona Voltage Level – (partial discharge extinction voltage)	26kV
AC Withstand – (1 minute)	50kV
Impulse-Withstand Voltage – (BIL)	150kV

Configuration 1: Arrester Stacked on Elbow

63RSA0 Kit

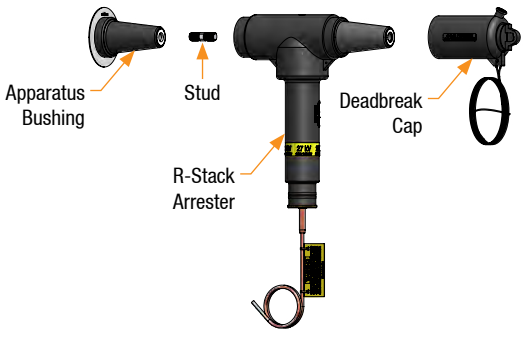


To stack an arrester on a deadbreak elbow, simply combine an R-Stack Arrester with a Deadbreak Elbow kit. By eliminating the need for a connecting plug, the stack height is significantly reduced.

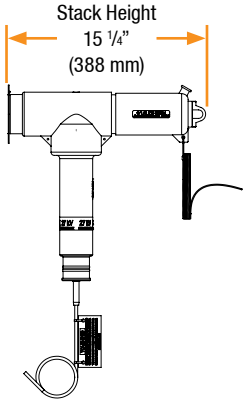


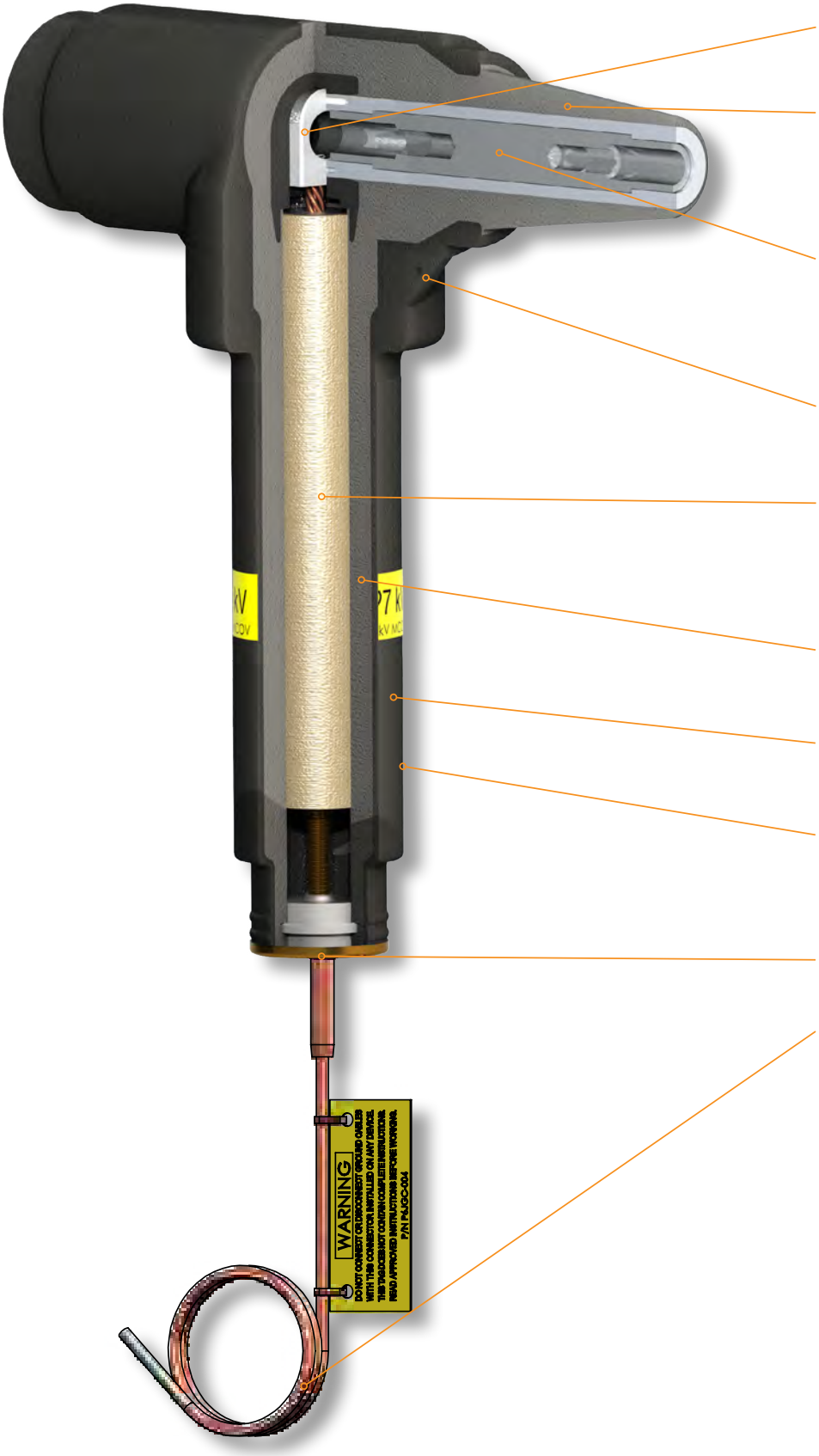
Configuration 2: Arrester Stacked on Bushing

63RSA1 Kit



For end of line connections, the R-Stack Arrester can be installed directly on the bushing.



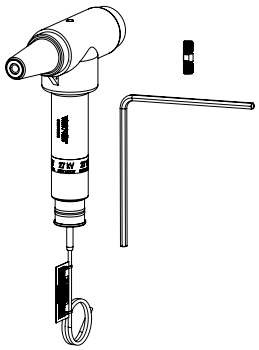


1. **600A CONTACT:** All-copper 600A Lug simulator acts like the spade of a 600A Lug to provide solid electrical contact.
2. **R-STACK 35KV 600A DEADBREAK MALE INTERFACE:** Rather than installing a connecting plug in the field, the R-Stack Arrester comes with this male interface molded directly into the elbow body.
3. **R-STACK FASTENER:** The R-Stack Fastener rotates in place, threading together with mating components. This unique fastener allows the R-Stack Arrester to be installed in either of the configurations shown on the previous page.
4. **DRAIN WIRE GROUNDING EYE:** Grounding eye provides a secure location to affix drain wires to the semi-conductive outer jacket.
5. **METAL OXIDE VARISTOR (MOV) DISK COLUMN:** The disk column assembly consists of MOV disks stacked together and wrapped in fiber. This gapless design ensures consistent and reliable performance.
6. **EPDM INSULATION:** The same high-quality rubber insulation that is found in all Richards medium voltage cable accessories.
7. **ARRESTER IDENTIFICATION LABEL:** Clearly visible yellow label indicates arrestor rating and MCOV.
8. **SEMI-CONDUCTIVE JACKET:** This semi-conductive peroxide-cured EPDM rubber jacket ensures compliance with IEEE Std. 592: Semiconducting Shields.
9. **BRASS CAP:** The brass cap provides a water-tight seal and robust contact for the copper ground lead.
10. **COPPER GROUND LEAD:** This 42” long #4 AWG copper braid—during arrester operation—provides a reliable path to system ground.

P650DAT INSTALLATION TOOL

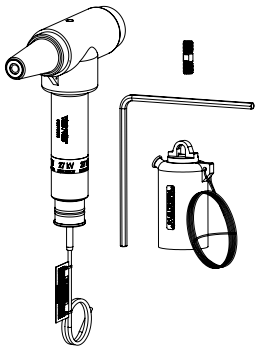
Our innovative installation tool comes with every kit. The tool is zone-annealed such that the wrench yields once the required 50-60 ft-lbs of torque is achieved. No torque wrench required.

R-Stack Arrester, Stud, and Installation Tool



Part Number	MCOV (kV)	Duty Cycle (kV)
63RSA0-24	19.5	24
63RSA0-27	22.0	27
63RSA0-30	24.4	30
63RSA0-33	26.8	33
63RSA0-36	29.0	36

R-Stack Arrester, Stud, Deadbreak Cap, and Installation Tool



Part Number	MCOV (kV)	Duty Cycle (kV)
63RSA1-24	19.5	24
63RSA1-27	22.0	27
63RSA1-30	24.4	30
63RSA1-33	26.8	33
63RSA1-36	29.0	36

CONTACT THE FACTORY IF YOU HAVE INTEREST IN SURGE ARRESTERS WITH OTHER MCOV/DUTY CYCLE RATINGS

R800

- Combines 200A Loadbreak tap and Deadbreak Elbow
- Available in multiple configurations to meet every application
- Includes installation tool that guarantees proper torque*
- Reduces inventory and installation costs

Designed and tested per the following industry standards:

- IEEE Std. 386: For Separable Insulated Connector Systems
- IEEE Std. 592: For Semiconducting Shields

Tell me more about the R-800, I'm not familiar with it.

The R-800 is a product that combines a Deadbreak Elbow and a 200A Loadbreak tap.

By combining multiple components into a pre-assembled, pre-tested body, you are able to increase reliability, simplify installation, and reduce overall installation cost. Like a machine with fewer moving parts, an installation with fewer interfaces and components is simpler and more dependable.

Fewer interfaces…that's certainly better. When would someone be using a Loadbreak tap?

There are three common applications. A Loadbreak Elbow may be installed to connect to a transformer or feed another circuit. A Loadbreak Insulating Cap may be installed and the interface used to perform a voltage test. Finally, a Loadbreak Arrester may be installed to provide surge protection.

We have established work practices for installing Loadbreak taps on our system. Do you manufacture an R-800 that meets my requirements?

We offer an R-800 to accommodate every method of installing Loadbreak Taps. Take a look at the next few pages and contact the factory if you have any questions.

Product Ratings

For your reference, IEEE ratings are provided below. Many of our products exceed these ratings. For product-specific information, see appropriate Product Data Sheet or contact the factory.

IEEE 386 - Industry Minimum Requirements		
Voltage Ratings		
Voltage Class, Phase-to-Phase	**15kV**	**25kV**
Maximum Operating Voltage – (phase-to-ground)	8.3kV	15.2kV
Corona Voltage Level – (partial discharge extinction voltage)	11kV	19kV
AC Withstand – (1 minute)	34kV	40kV
Impulse-Withstand Voltage – (BIL)	95kV	125kV

Current Ratings (Deadbreak Side)	
Continuous – (Aluminum)	600A
Continuous – (Copper)	900A
Short-Time Current – (Aluminum)	25kA, 10c. and 10kA, 3s.
Short-Time Current – (Copper)	40kA, 10c. and 10kA, 3s.

Current Ratings (Loadbreak Side)	
Continuous	200A
Short-Time Current	10kA, 10c. and 3.5kA, 3s.

OUR TESTING EXCEEDS INDUSTRY REQUIREMENTS. IEEE REQUIRES PARTIAL DISCHARGE PLUS A CHOICE OF AC OR IMPULSE WITHSTAND. RICHARDS RUNS ALL THREE TO ENSURE THE HIGHEST QUALITY.

Installing an R-800 is extremely simple and efficient—pictured below is the installation of a “G” Style 15kV R-800:

THE FIRST STEP.

A standard threaded stud is hand-tightened into the bushing. The lug/cable assembly is inserted into the R-800 and pushed into position. The assembly tool is inserted through the 200A interface to engage the fastener. Note the fastener is in the recessed position.

THE SECOND STEP.

The fastener is pushed through the lug hole, and locks into the forward position. The fastener will stay in the forward position, holding the lug/cable assembly in place.

THE LAST STEP.

The R-800 is pushed onto the mating interface. The fastener is rotated, engaging the threads on the stud, until the proper torque is reached. A mating accessory is installed—in this case a Loadbreak Insulating Cap—completing the assembly.

Scan these QR codes to watch short videos on installing our other R-800 versions

R-800 G Style

R-800 H Style

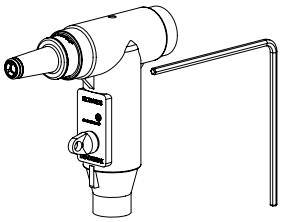
R-800 M Style

Choose the R-800 that's right for your system:

R-800 Fastener Styles							
Currently Using:	**Upgrade to R-800 Type:**	**Installation Torque**	**Tool Size**	**Lug**	**Stick Operable***	**Male or Female?****	**One-Piece Design**
Elbow Tap Plug (ETP) or Bushing Insert + Reducing Tap Well	H	55 ft-lbs	3/8"	Regular	No	Female	Yes
T-OP II	G	20 ft-lbs	5/16"	15/16" Hole	Yes		
Loadbreak Reducing Tap Plug (LRTP)	M	55 ft-lbs	3/8"	Regular		Male	

* Stick operability is defined here as the ability to remove the R-800 from the bushing without the assembly of R-800/Cable/Lug being separated.
** Female R-800's come with a loose threaded stud. Male R-800's have the threaded stud built into the fastener.

To Schedule a Demonstration Contact Your Local Sales Rep



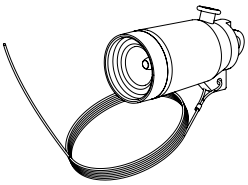
R-800 (without Test Point, with Integral Male Fastener for use with Standard Lug) and Hex Tool

618MN0 — 15kV
628MN0 — 25kV

R-800 (with Test Point and Integral Male Fastener for use with Standard Lug) and Hex Tool

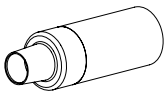
618MT0 — 15kV
628MT0 — 25kV

Base component is shown with "M" style fastener for example only. For other fastener options, see Ordering Information page.



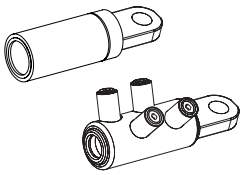
Loadbreak Insulating Cap (with drain wire)

21LBICG — 15kV
22LBICG — 25kV



Cable Adapter

P625CA-W — 15/25kV *Use TABLE W1 to select "W".*



Aluminum Compression or Shear Bolt Lug (Al/Cu Rated)

P6AL-X — 15/25/35kV *For Compression Lugs, use TABLE X to select "X". For Shear Bolt Lugs, use TABLE RX to select "X".*

Copper-top Compression Lug (Al/Cu Rated)

P7ALCU-X — 15/25/35kV *Use TABLE X to select "X".*

Copper Compression Lug (for use w/ copper conductors only)

P9CU-X — 15/25/35kV *Use TABLE X to select "X".*

For a 15/16" threaded lug, add "-15/16" to the end of the lug part number.

618FNO shown

IF A FEMALE FASTENER IS NEEDED, PLEASE FOLLOW THE ORDERING INFORMATION PAGE

Female fastener means the R-800 comes with a loose threaded stud.

Sample Part Number

7	2	8	G	N	2	LM	23	D	D
Current Ratings*	Voltage Class		Fastener Type	Test Point	Kit Type**	"W" Cable Adapter Size	"X" Lug Code	Shield Adapter	Jacket Seal

Current Ratings*
- 6 = 600A (Al/Cu rated lug)
- 7 = 600A (Al/Cu rated Copper-Top Lug)
- 9*** = 900A (Cu rated Compression Lug OR Al/Cu rated Shear Bolt Lug)

Voltage Class
- 1 = 15kV
- 2 = 25kV

Fastener Type
- G = Female fastener with large shoulder used with large hole lugs (15/16" threaded holes)
- H = Female fastener with through-broach used with standard lug
- M = Male fastener used with standard lug

Test Point
- N = None
- T = W/ Capacitive Test-Point

Kit Type**
- 0 = R-800 only
- 2 = R-800, cable adapter, and lug
- 3 = R-800, loadbreak cap, cable adapter, and lug

"W" Cable Adapter Size / **"X" Lug Code**

Note: If "0" was selected for Kit Type leave both characters blank.

Compression Lug Kit:
Select **Cable Adapter Size** using TABLE W1 or W3 (depending on voltage class). Select **Lug Code** using TABLE X.

Range Taking Shear Bolt Lug Kit*:**
Select **Cable Adapter Size** using TABLE W1 or W3 (depending on voltage class). Select **Lug Code** using TABLE RX.

Shield Adapter / Jacket Seal

No Shield Adapter/Jacket Seal:
Leave both blank.

Shield Adapter/Jacket Seal Kit:
Select **Kit Suffix** from the Jacket Seal/Shield Adapter section in Accessories. For your convenience, common options are listed in the **Suffix Table** below.

Suffix Table

Kit Suffix	Part Number (If ordering separately)	Description
AC	PCRK005-1	Cold Shrink Seal (for Cable Adapter Size E-J and all Loadbreak Elbow sizes)
AD	PCRK005-2	Cold Shrink Seal (for Cable Adapter Size K-PQ)
AG	PCRK005-3	Cold Shrink Seal (for 35kV Cables 1250kcmil and larger)
BC	PCRK16-2	Cold Shrink and #6 AWG Tinned Copper Braid w/ Constant Force Spring (for Cable Adapter Size E-J and all Loadbreak Elbow sizes)
DD	PCRK12-3	Cold Shrink and #4 AWG Tinned Copper Braid w/ Constant Force Spring (for Cable Adapter Size K-PQ)
DG	PCRK12-6	Cold Shrink and #4 AWG Tinned Copper Braid w/ Constant Force Spring (for 35kV Cables 1250kcmil and larger)

P650DAT INSTALLATION TOOL INCLUDED WITH ALL 3/8" FASTENER R-800'S

* *Applies to deadbreak interface current path.*
** *Female R-800 kits include loose stud.*
*** *Range Taking Shear Bolt lugs are only available in aluminum.*

Sample Part Number *is a 25kV R-800 kit. Kit includes "G" style R-800 (without Test Point), Cable Adapter (size LM), threaded 15/16" Copper-top Lug for 750 kcmil Strd/Compr, Copper Stud and a PCRK12-3 Jacket Seal/Shield Adapter kit.*

CS8 Series - Cold Shrink R800

- Combines 200A Loadbreak tap and CSH Series Elbow
- Available in multiple configurations to meet every application
- Immensely simplifies installation and increases reliability
- Reduces inventory and installation costs

Designed and tested per the following industry standards:

- IEEE Std. 386: For Separable Insulated Connector Systems
- IEEE Std. 592: For Semiconducting Shields

The Cold Shrink R-800 (CS8 Series) is an innovative blend of the Richards CSH Series and R-800. Like the traditional R-800, the CS8 Series is molded with a 200A Loadbreak Tap integral to the Deadbreak Elbow housing. Its cold shrinkable cable entrance eliminates the need for a cable adapter and separate jacket seal kit. By combining so many components into a single housing, the CS8 series is perfectly optimized for simplicity and reliability.
The Cold Shrink R-800 is equipped with a stainless steel Fastener, a specialized internal component that is engaged by assembly tool to torque the assembly of R-800, Lug and mating component. These fasteners are available in several types, designed to provide configurations to meet every application.

- **All-In-One Solution:** The CS8 is range-taking and includes an integral loadbreak tap and jacket seal, providing a complete solution in a simple package. Three separate components have been elegantly combined into a single design.
- **100% EPDM:** Richards Cold Shrink Products are molded from 100% EPDM, a proven material in underground electrical applications for decades. This proprietary formulation of Cold Shrink EPDM is produced in-house. To achieve maximum durability in underground environments, the CS8 features a fully-integrated, oil-resistant EPDM jacket that provides outstanding mechanical impact/tear resistance.
- **Easy Installation:** Eliminates cable adapter, separate jacket seal kit, and loadbreak tap plug. The cold shrink Cable Entrance eliminates problems that arise when sliding traditional interference-fit Deadbreak elbows into position. This ergonomic improvement substantially simplifies positioning/aligning the lug in the CS8 housing.
- **Designed, Molded & Tested in the USA:** Our team is intimately involved in everything from material development, product and mold design, and production. This allows us to control every aspect of the design, down to the smallest detail.

Product Ratings

For your reference, IEEE ratings are provided below. Many of our products exceed these ratings. For product-specific information, see appropriate Product Data Sheet or contact the factory.

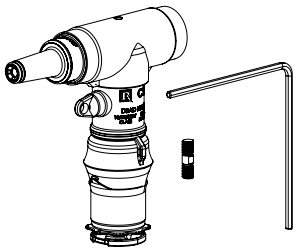
IEEE 386 - Industry Minimum Requirements		
Voltage Ratings		
Voltage Class, Phase-to-Phase	**15kV**	**25kV**
Maximum Operating Voltage – (phase-to-ground)	8.3kV	15.2kV
Corona Voltage Level – (partial discharge extinction voltage)	11kV	19kV
AC Withstand – (1 minute)	34kV	40kV
Impulse-Withstand Voltage – (BIL)	95kV	125kV

Current Ratings (Deadbreak Side)	
Continuous – (Aluminum)	600A
Continuous – (Copper)	900A
Short-Time Current – (Aluminum)	25kA, 10c. and 10kA, 3s.
Short-Time Current – (Copper)	40kA, 10c. and 10kA, 3s.

Current Ratings (Loadbreak Side)	
Continuous	200A
Short-Time Current	10kA, 10c. and 3.5kA, 3s.

SCAN QR CODE TO WATCH INSTALLATION VIDEO

OUR TESTING EXCEEDS INDUSTRY REQUIREMENTS. IEEE REQUIRES PARTIAL DISCHARGE PLUS A CHOICE OF AC OR IMPULSE WITHSTAND. RICHARDS RUNS ALL THREE TO ENSURE THE HIGHEST QUALITY.



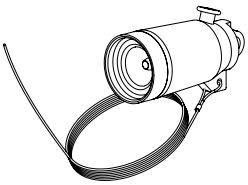
CS8 (without Test Point, with Integral Female Fastener for use with Standard Lug), Hex Tool, and Aluminum Stud

61CS8HN1 — 15kV
62CS8HN1 — 25kV

CS8 (with Test Point and Integral Female Fastener for use with Standard Lug), Hex Tool, and Aluminum Stud

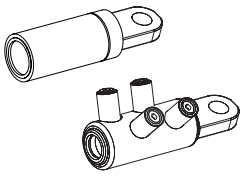
61CS8HT1 — 15kV
62CS8HT1 — 25kV

Base component is shown with "H" style fastener for example only. For other fastener options, see Ordering Information page.



Loadbreak Insulating Cap (with drain wire)

21LBICG — 15kV
22LBICG — 25kV



Aluminum Compression or Shear Bolt Lug (Al/Cu Rated)

P6AL-X — 15/25/35kV *For Compression Lugs, use TABLE X to select "X". For Shear Bolt Lugs, use TABLE RX to select "X".*

Copper-top Compression Lug (Al/Cu Rated)

P7ALCU-X — 15/25/35kV *Use TABLE X to select "X".*

Copper Compression Lug (for use w/ copper conductors only)

P9CU-X — 15/25/35kV *Use TABLE X to select "X".*

For a 15/16" threaded lug, add "-15/16" to the end of the lug part number.

Sample Part Number

7	2	CS8	G	T	2	P	23	G
Current Ratings*	Voltage Class	Product Series	Fastener Type	Test Point	Kit Type	"Z" Elbow Size	"X" Lug Code	Shield Adapter

Current Ratings*
- 6 = 600A (Al/Cu rated lug)
- 7 = 600A (Al/Cu rated Copper-Top Lug)
- 9** = 900A (Cu rated Compression Lug OR Al/Cu rated Shear Bolt Lug)

Voltage Class
- 1 = 15kV
- 2 = 25kV

Fastener Type
- G = Female fastener with large shoulder used with large hole lugs (15/16" threaded holes)
- H = Female fastener with through-broach used with standard lug

Test Point
- N = None
- T = W/ Capacitive Test-Point

Kit Type
- 1 = CS8 Housing and Stud
- 2 = CS8 Housing, Stud, and Lug
- 3 = CS8 Housing, Stud, Lug, and Loadbreak Cap

"Z" Elbow Size / "X" Lug Code

Elbow Only (No Lug):
Select **Elbow Size** (O, P, or Q) based on USE RANGE-25CSH TABLE. Leave **Lug Code** blank.

Compression Lug Kit:
Select **Elbow Size** (O, P, or Q) based on USE RANGE-25CSH TABLE. Select **Lug Code** using TABLE X.

Range Taking Kit w/ Shear Bolt Lug:**
Select **Elbow Size** + **Lug Code** using TABLE XRA-25CSH.

Shield Adapter

Note: Leave blank if Shield Adapter is not needed.
- G = Tinned Copper Braid w/ Solder Block and Constant Force Spring

Braid size is #6 for housing size "O" and #4 for housing sizes "P" and "Q".

P650DAT INSTALLATION TOOL INCLUDED WITH ALL 3/8" FASTENER R-800'S

* *Applies to deadbreak interface current path.*
** *Range Taking Shear Bolt Lugs are only available in aluminum.*

Sample Part Number *is a 25kV CS8 kit. Kit includes Size "P" CS8 (with Test Point and "G" style fastener), threaded 15/16" Copper-top Lug for 750 kcmil Strd/Compr, Copper Stud and a PCRK-GA-05 Shield Adapter kit.*

Bushing Extender R800

- Integrated Deadbreak Bushing Extender with Loadbreak Tap
- Factory-assembled and factory-tested
- Significantly simplifies installation

Designed and tested per the following industry standards:

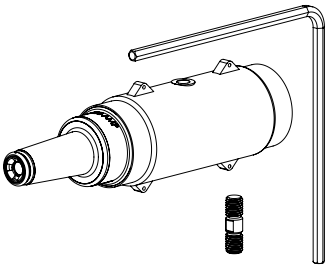
- IEEE Std. 386: For Separable Insulated Connector Systems
- IEEE Std. 592: For Semiconducting Shields

The Richards Bushing Extender R-800 is the only fully-integrated 200A Loadbreak Tap and 600/900A Deadbreak Bushing Extender. Like many Richards Medium Voltage innovations, this product takes multiple components and combines them into a single factory-molded and factory-tested unit. This not only reduces installation cost and effort, but increases reliability and quality for our customers. The Bushing Extender R-800 is used to transition from an IEEE 386 600/900A Deadbreak interface to an IEEE 386 200A Loadbreak interface. Typical applications include:

- Installation of a 200A Loadbreak Elbow
- Installation of a 200A Surge Arrester
- Installation of an Insulating Cap, removed when testing the interface using approved voltage-indicators

1. **600/900A MATING INTERFACE:** IEEE 386 Interface 11.
2. **THREADED STUD:** A standard threaded stud is hand-tightened into mating part before installing the Bushing Extender R-800.
3. **EPDM CONSTRUCTION:** Our peroxide-cured EPDM is formulated and produced completely in-house by our rubber production division. This material is durable, reliable and possesses ideal electrical properties for underground medium voltage applications.
4. **INTERNAL FASTENER:** To thread the Bushing Extender R-800 onto the mating interface, the installer simply rotates the internal fastener with an assembly tool (pictured) as opposed to rotating the entire EPDM housing. This makes installation as easy and simple as possible.
5. **SOLID INTEGRAL CONSTRUCTION:** The Bushing Extender R-800 is molded and tested as a solid, fully-integrated product. By reducing multiple components and installation steps to one, total installation cost is dramatically reduced. Further, by reducing the potential for installation errors (such as interface contamination), reliability is increased.
6. **SEATING INDICATOR:** The seating indicator provides visual confirmation of proper seating between the Bushing Extender R-800 and 200A Loadbreak mating part. The indicator is completely covered when seating is correct.
7. **200A LOADBREAK INTERFACE:** This IEEE 386 Interface 5 (15kV) or Interface 7 (25kV) mates with a 200A Loadbreak Insulating Cap, Surge Arrester, or Loadbreak Elbow. A 15kV interface is shown above.
8. **DISPOSABLE INSTALLATION TOOL:** Our innovative disposable installation tool comes with every kit. The tool is zone-annealed such that the wrench yields once the required 50-60 ft-lbs of torque are achieved. No torque wrench required.

KIT OPTIONS



Bushing Extender R-800, Hex Tool, and Stud

618BEF — 15kV
628BEF — 25kV

Product Ratings

For your reference, IEEE ratings are provided below. Many of our products exceed these ratings. For product-specific information, see appropriate Product Data Sheet or contact the factory.

IEEE 386 - Industry Minimum Requirements		
Voltage Ratings		
Voltage Class, Phase-to-Phase	**15kV**	**25kV**
Maximum Operating Voltage – (phase-to-ground)	8.3kV	15.2kV
Corona Voltage Level – (partial discharge extinction voltage)	11kV	19kV
AC Withstand – (1 minute)	34kV	40kV
Impulse-Withstand Voltage – (BIL)	95kV	125kV

Current Ratings	
Continuous Current	200A
Short-Time Current	10kA, 10c. and 3.5kA, 3s.

OUR TESTING EXCEEDS INDUSTRY REQUIREMENTS. IEEE REQUIRES PARTIAL DISCHARGE PLUS A CHOICE OF AC OR IMPULSE WITHSTAND. RICHARDS RUNS ALL THREE TO ENSURE THE HIGHEST QUALITY.

200A Loadbreak Elbow

- Fully Shielded/Deadfront design
- Optional capacitive test point
- Copper-top or all-copper lug available
- Molded in the USA

Designed and tested per the following industry standards:

- IEEE Std. 386: For Separable Insulated Connector Systems
- IEEE Std. 592: For Semiconducting Shields

200A LOADBREAK ELBOW

The Richards 15kV 200A Loadbreak Elbow is a cable accessory that provides a convenient, reliable means of connecting power cables to equipment, switchgear and other accessories. System operators can utilize the stainless steel bail molded into the back of the Elbow to perform loadbreak/loadmake operations with a hot stick.

The Loadbreak Elbow connector system utilizes a tin-plated copper probe with an ablative tip designed to quench arcs drawn during loadbreak. The 15kV 200A Loadbreak Elbow has both a phase-to-phase and phase-to-ground rating, as indicated by the white band with black stripe in center located near the cable entrance of the Elbow.

RUS ACCEPTED

Product Ratings

For your reference, IEEE ratings are provided below. Many of our products exceed these ratings. For product-specific information, see appropriate Product Data Sheet or contact the factory.

IEEE 386 - Industry Minimum Requirements	
Voltage Ratings	
Voltage Class, Phase-to-Phase	**15kV**
Maximum Operating Voltage – (phase-to-ground/phase-to-phase)	8.3/14.4kV
Corona Voltage Level – (partial discharge extinction voltage)	11kV
AC Withstand – (1 minute)	34kV
Impulse-Withstand Voltage – (BIL)	95kV

Continuous Current Ratings	
Copper-top	200A
Copper	

Short-Time Current Ratings	
Copper-top	10 kA, 10c. and 3.5 kA, 3s.
Copper	

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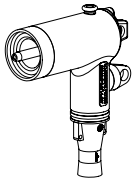


200A Loadbreak Elbow (without Test Point) and Probe

21LBN1W — 15kV

200A Loadbreak Elbow (with Test Point) and Probe

21LBT1W — 15kV

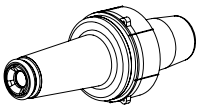
Use TABLE W2 to select "W".

Loadbreak Compression Lug

P2ALCU-X — Copper-top (Al/Cu Rated)

P2CU-X — Copper (For use with Copper conductors only)

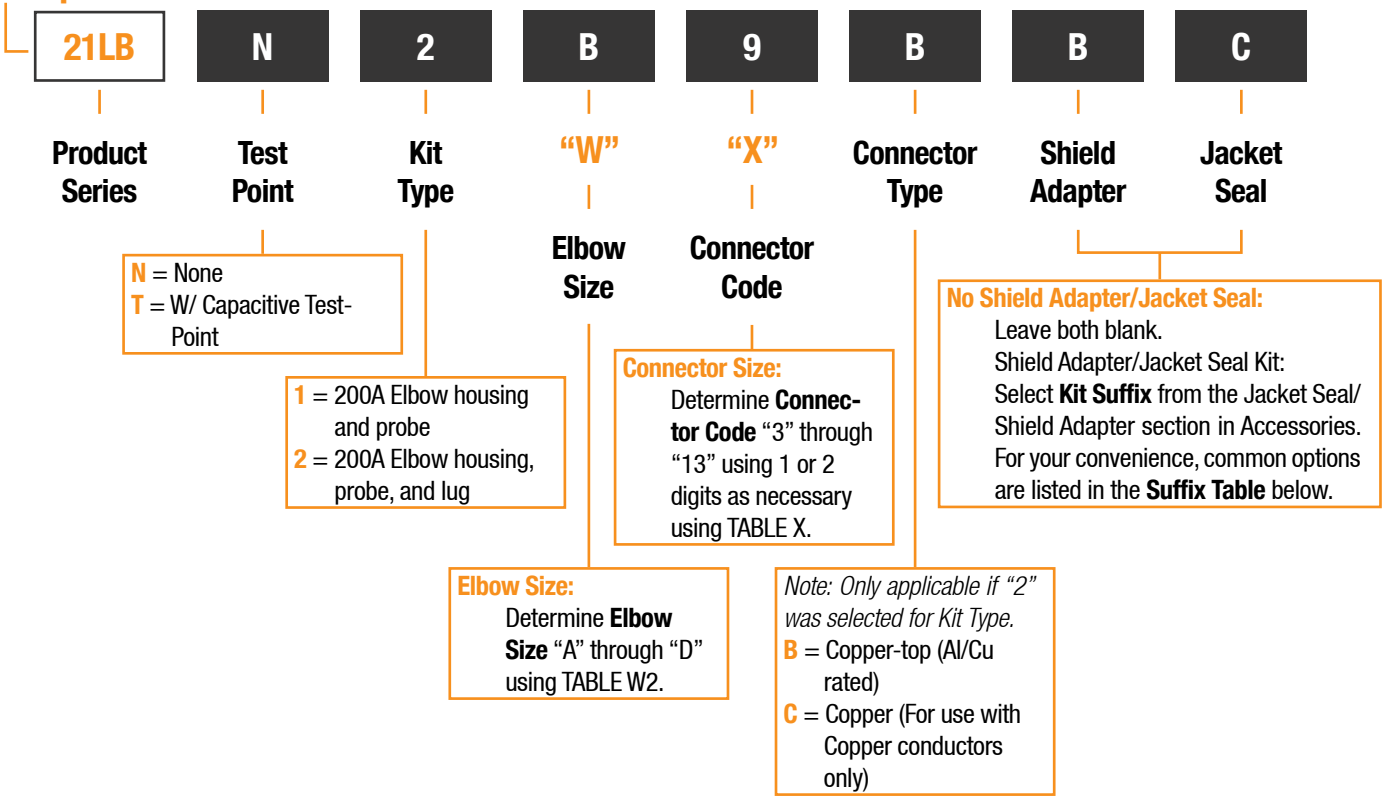
Use TABLE X to select "X".



Loadbreak Bushing Insert

21LBI — 15kV

Sample Part Number



Suffix Table		
Kit Suffix	**Part Number (If ordering separately)**	**Description**
AC	PCRK005-1	Cold Shrink Seal (for Cable Adapter Size E-J and all Loadbreak Elbow sizes)
BC	PCRK16-2	Cold Shrink and #6 AWG Tinned Copper Braid w/ Constant Force Spring (for Cable Adapter Size E-J and all Loadbreak Elbow sizes)

Sample Part Number *is a 15kV 200A Loadbreak Elbow kit. Kit includes "B" size Loadbreak Elbow (without Test Point), Copper-top Compression Lug for 1/0 AWG Strd/Compr or 2/0 AWG Cmpt, and a PCRK16-2 Jacket Seal/Shield Adapter kit.*

SSC™ Series - Cold Shrink Splice

- Extreme mechanical durability
- Optional capacitive test point
- Range-Taking Design
- Simple design loaded with features to increase reliability and ease installation

Designed and tested per the following industry standards:

- IEEE Std. 404: For Extruded and Laminated Dielectric Shielded Cable Joints
- IEEE Std. 592: For Semiconducting Shields

SSC SERIES - COLD SHRINK SPLICE

The SSC™ Series from Richards Manufacturing is a cold shrink splicing system for use on medium voltage power cables through 35kV. Equipped with numerous advantages and features, the SSC Series is an innovative, high-performance splicing solution. The Splice is a hybrid design, incorporating the best features of cold shrink and push-on technologies. For example, our Splice provides the benefits of cold shrink—integral jacket seals, range taking capabilities—and yet it also can be furnished with a capacitive test point. Molded entirely from Richards cold shrink EPDM materials, the Splice is built for durability in the toughest environments.

SCAN QR CODE TO WATCH INSTALLATION VIDEO

OUR TESTING EXCEEDS INDUSTRY REQUIREMENTS. IEEE REQUIRES PARTIAL DISCHARGE PLUS A CHOICE OF AC OR IMPULSE WITHSTAND. RICHARDS RUNS ALL THREE TO ENSURE THE HIGHEST QUALITY.

Product Ratings

For your reference, IEEE ratings are provided below. Many of our products exceed these ratings. For product-specific information, see appropriate Product Data Sheet or contact the factory.

IEEE 404 - Industry Minimum Requirements			
Voltage Ratings			
Voltage Class, Phase-to-Phase	**15kV**	**25kV**	**35kV**
Maximum Operating Voltage – (phase-to-ground)	8.7kV	14.4kV	20.2kV
Corona Voltage Level – (partial discharge extinction voltage)	13kV	22kV	30kV
AC Withstand – (1 minute)	35kV	52kV	69kV
Impulse-Withstand Voltage – (BIL)	110kV	150kV	200kV

Current Ratings	
Continuous Current	Cable Rated
Short-Time Current*	

* *Maximum 40kA for 10 cycles per IEEE Std.. 404*

To Schedule a Demonstration Contact Your Local Sales Rep

1. **CONNECTORS:** Our shear bolts are engineered to break below the surface of the connector regardless of cable cross section. This eliminates the need for filing down protruding sharp edges, which can introduce contamination and cause failure. Our connector and cold shrink splice housing were carefully engineered and tested to ensure they work together as a proven, solid system—no more guessing about connector/housing compatibility.
2. **EPDM CONSTRUCTION:** The SSC is molded entirely from EPDM, a proven material in underground electrical applications. Our oil-resistant cold shrink material was formulated in-house, and is produced by our rubber manufacturing division. The durable, bonded semi-conductive jacket of the splice provides outstanding mechanical impact/tear resistance. The splice body is fully shielded and passes industry qualification testing without any mesh or sock.
3. **INTEGRAL JACKET SEAL**: The SSC is equipped with integral jacket seals, making sealing the metallic shield and outer jacket incredibly easy. The jacket seals are deployed over supplied sealing mastic, forming a dependable barrier against water ingress.
4. **CENTERING GROOVE**: A common concern when installing a cold shrink splice is ensuring the splice is properly seated. Improper positioning of a splice can result in electrical failure. The centering groove on our splice prevents this issue by ensuring the splice body is properly seated. As it is pushed from the parked position to the center of the connector, the splice will reach a positive stop when correctly seated. The splice will stay in the center while the cable prep and removal of the cores is completed.
5. **CAPACITIVE TEST POINT**: The center of the splice is unexpanded, allowing for an optional capacitive test point. In fact, the SSC Series is the only cold shrink splicing solution on the market equipped with this feature.
6. **EASY-TO-REMOVE CORE**: Hold-out cores that rely on grease or a ribbon/spiral design can be unreliable and messy. Spiral holdouts can be difficult to remove and may prematurely collapse. Richards product development engineers created a compact core design that is easy to eject, and performs consistently across a variety of installation environments. Once ejected, the Core separates into halves which can be recycled.

Sample Part Number

6	2	SSC	T	P	R1	JA
Connector Material	Voltage Class	Product Series	Test Point	"Z" Splice Size	"X" Connector Code	Neutral Jumper

Connector Material
- 6 = Aluminum (Al/Cu rated)*
- 9 = Copper (For use with Copper conductor only)

Voltage Class
- 2 = 15/25kV
- 3 = 35kV

Test Point
- N = None
- T = W/ Capacitive Test-Point

Splice Size
Select **Splice Size** (O, P, or Q) based on USE RANGE-SSC TABLE.

Connector Code

Range Taking Shear Bolt Connector Kit:**
Select **Connector Code** using TABLE XRA-SSC. Select from Connector Codes that correspond to the selected **Splice Size**.
Note: The total range of the SSC is based on the overlap of the conductor range (see TABLE XRA-SSC) and the splice housing range (see USE RANGE-SSC TABLE).

Size-Specific Shear Bolt Connector Kit*:
Select "X" for side A and B of the connector using TABLE X. Specify **Connector Code** using the following format: "X"$_{\text{side A}}$ + H + "X"$_{\text{side B}}$

Neutral Jumper

No Jumper:
Leave blank.

Covered Neutral Jumper (CNJ):
- JA = CNJ w/ complete covering across length
- JB = CNJ w/ exposed tinned copper center for tap connection

Standard CNJ cross section is #2 copper for housing size "O", 1/0 copper for housing size "P", and 2/0 copper for housing size "Q". Contact factory for alternative sizing options.

NEUTRAL JUMPER

No Jumper Supplied

Neutral connection across splice made by bringing cable neutral wires/straps external to integral jacket seals

For use with: Jacketed Concentric Neutral (JCN)
Jacketed Flat Strap Neutral

Covered Neutral Jumper (CNJ)

Neutral connection across splice made with supplied jumper. Richards innovative CNJ features integral constant force spring and pull loop for ease of installation and improved ergonomics. Connections to cable neutral are completely covered by integral jacket seals.

For use with: Jacketed Concentric Neutral (JCN)
Jacketed Flat Strap Neutral
Longitudinally Corrugated (LC) Neutral
Tape Shielded Neutral

* *Aluminum Size-Specific Shear Bolt Connectors are only available at or above 350 kcmil.*
** *Range Taking Shear Bolt Connectors are only available in aluminum (Al/Cu rated).*

Sample Part Number *is a 15/25kV SSC Kit. Kit includes Size "P" Splice (with Test Point), Range Taking Aluminum Shear Bolt Connector (1/0 AWG - 500 kcmil Cmpt), and 1/0 AWG Covered Neutral Jumper*

Disconnectable Joints

- Dependable multi-way splice
- Low-profile, space-saving splicing solution
- Modular design
- Available in cold shrink or traditional pre-molded

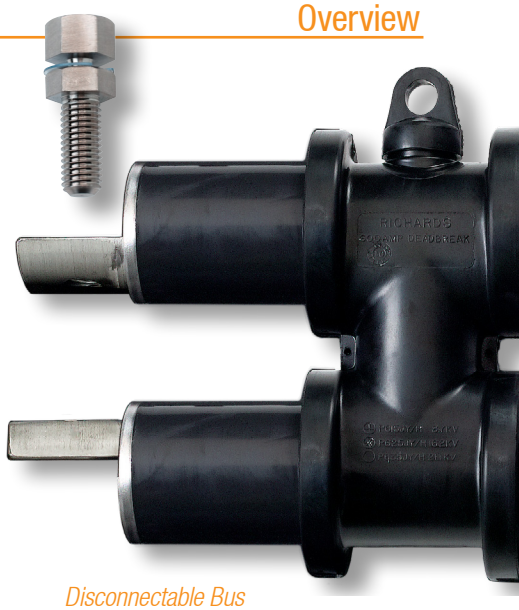
Designed and tested per the following industry standards:

- IEEE Std. 386: For Separable Insulated Connector Systems
- IEEE Std. 404: For Extruded and Laminated Dielectric Shielded Cable Joints
- IEEE Std. 592: For Semiconducting Shields

A versatile, ultra-rugged splicing solution

The Richards Disconnectable Joint system is a medium voltage splicing solution available through 35kV. Other methods for multi-way medium voltage splicing involve complicated installation and are extremely difficult in congested underground distribution environments.

The Disconnectable Joint system is easy to install, low-profile, rugged, and highly-configurable. 6 unique Bus options allow for splicing of up to 6 power cables in an extremely compact, low-profile solution. The bus size is universal, accommodating a wide range of cable sizes for easy transitions. Each landed cable is torqued independently from the others, allowing re-configuration of connections without compromising the connection integrity of neighboring legs. Accessories are available for isolating, grounding, expansion and more.



Disconnectable Bus

Standard Sleeve

Cold Shrink Sleeve

ALL-COPPER 900A JOINTS AVAILABLE

To Schedule a Demonstration Contact Your Local Sales Rep

Product Ratings

For your reference, IEEE ratings are provided below. Many of our products exceed these ratings. For product-specific information, see appropriate Product Data Sheet or contact the factory.

IEEE 386 - Minimum Product Ratings			
Voltage Ratings			
Voltage Class, Phase-to-Phase	**15kV**	**25kV**	**35kV**
Maximum Operating Voltage – (phase-to-ground)	8.3kV	15.2kV	21.1kV
Corona Voltage Level – (partial discharge extinction voltage)	11kV	19kV	26kV
AC Withstand – (1 minute)	34kV	40kV	50kV
Impulse-Withstand Voltage – (BIL)	95kV	125kV	150kV

Continuous Current Ratings	
Aluminum	600A
Copper	900A

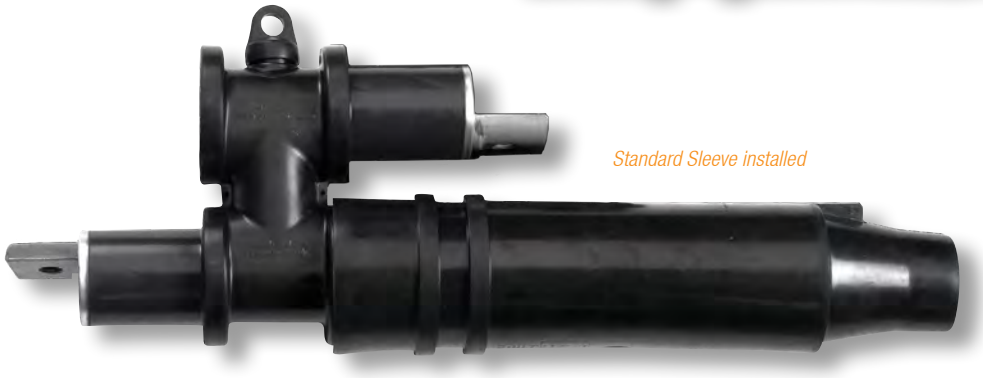
Short-Time Current Ratings	
Aluminum	25kA, 10c. and 10kA, 3s.
Copper	40kA, 10c. and 10kA, 3s.

OUR TESTING EXCEEDS INDUSTRY REQUIREMENTS. IEEE REQUIRES PARTIAL DISCHARGE PLUS A CHOICE OF AC OR IMPULSE WITHSTAND. RICHARDS RUNS ALL THREE TO ENSURE THE HIGHEST QUALITY.

JS Series - Standard Pre-molded Sleeve

The JS Series is the original disconnectable joint sleeve, designed and manufactured by Richards for many years. The push-on style design slides over the prepared cable and mates with the Disconnectable Joint Bus. The Sleeve forms an interference fit with both the bus and cable adapter to ensure a secure connection. This standard design is compatible with a variety of Richards innovative accessories, such as Sleeve Restraints.

- 100% EPDM composition
- Low-profile, space-saving splicing solution
- Dependable Multi-Way Splice



Standard Sleeve installed

JSCS Series - Cold Shrink Sleeve

The JSCS Series Cold Shrink Sleeve is a major breakthrough in Disconnectable Joint technology. This range-taking design significantly eases installation and eliminates the need for several components. The JSCS Series is molded from Richards' Cold Shrink EPDM formula which is manufactured by our rubber production division. Equipped with a rugged, oil-resistant EPDM exterior, the Cold Shrink Sleeve is built to last in the toughest environments. Available in 15/25kV and 35kV, the JSCS is 100% compatible with existing Disconnectable Joint interfaces.

- Eliminates Cable Adapter and Retaining Ring
- 100% EPDM composition
- Reduces Installation force
- Range-Taking
- Integral Jacket Seal
- Compatible with existing Disconnectable Joint tools and accessories

Cold Shrink Sleeve installed

Joint Busses

The Disconnectable Joint Bus is the center component of the Disconnectable Joint to which the cables are interconnected. Available in Aluminum or Copper, the Bus is fully insulated/shielded and features a capacitive test point. The various positions of the Bus allow for interconnection of medium voltage cables in an ultra-low-profile configuration. The bus size is universal, accommodating a wide range of cable sizes for easy transitions.

Available In “I’, “Y”, “H”, “U”, “E” and “L” configurations, see Accessories (page 64) for details.

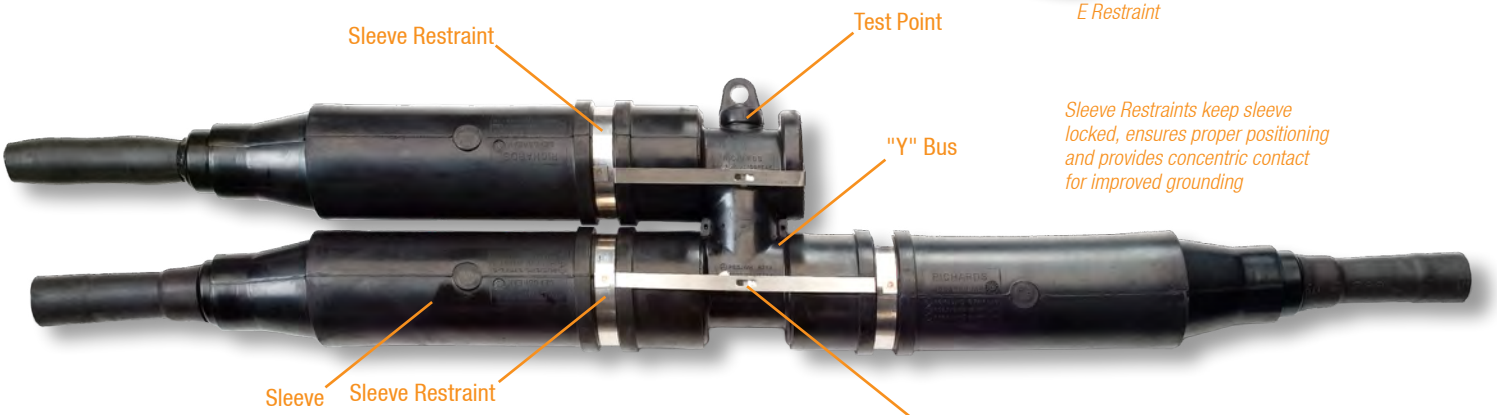
- 100% EPDM composition
- Low-profile, space-saving splicing solution
- Dependable Multi-Way Splice

Sleeve Restraints

Richards Sleeve Restraints give you the extra security and peace of mind you need for sleeves installed in extreme environments (such as excessive heat from overloaded joints, or cables suspected of having water in the strands, which can increase internal pressure) or very demanding locations (tight vaults, for example, where cables need to be bent to fit.)

- Added security for especially demanding environments
- Guarantees proper sleeve positioning — the Sleeve Restraint cannot be installed until sleeves are fully seated
- Provides better grounding connection

Our Sleeve Restraint locks sleeves in place—ensuring the joint remains tightly together and minimizing the probability of failures in any situation. Restraints are available as an add-on with Joint Kits.

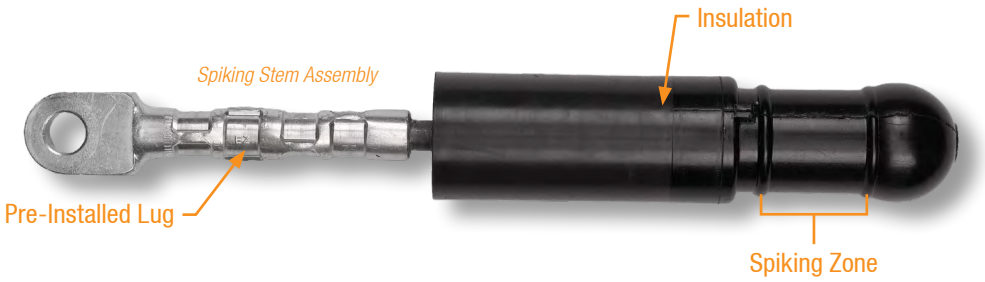


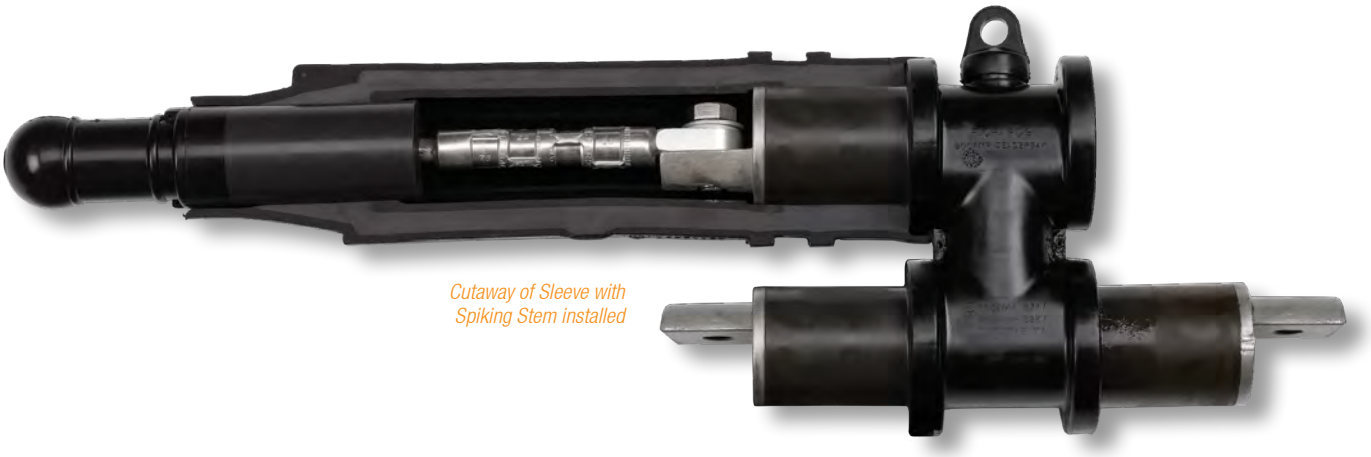
Sleeve Restraints keep sleeve locked, ensures proper positioning and provides concentric contact for improved grounding

Spiking Stem

The Spiking Stem is a special accessory designed for use with Disconnectable Splices. For customers that "spike" to verify a circuit is de-energized, this accessory makes the process simple and cost effective. As opposed to preparing a piece of cable and affixing a live-end cap, the Spiking Stem comes with everything pre-molded and a compression lug crimped on the end. The lug is bolted to the bus of a Disconnectable Splice—just the same as normal cable connections are attached to the bus. The Spiking Stem protrudes only a small length from the end of the Sleeve, preserving the compact, low-profile nature of the Disconnectable Splice. Simply setup a custom kit with this Spiking Stem included with your Disconnectable Joints and everything you need will come in one convenient package.

- Saves time and effort when spiking cable
- Low profile, compact design
- Factory-assembled and factory-tested
- Pre-crimped lug for easy installation
- Compatible with all Disconnectable Joints—no special bus required!
- Available with cold shrink or standard sleeve



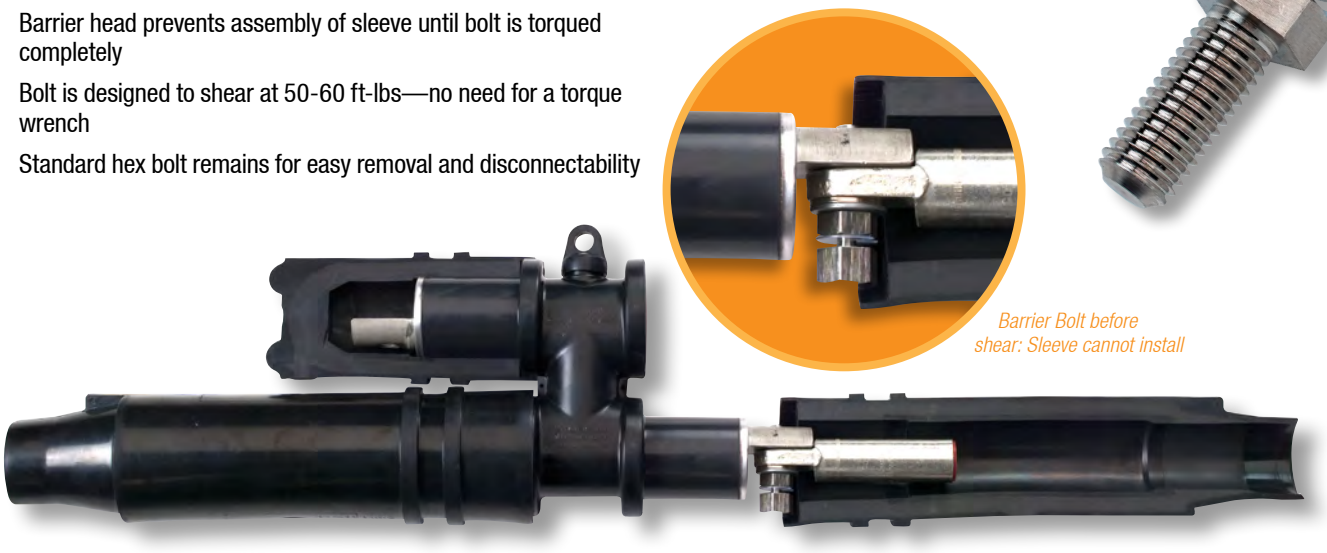


Cutaway of Sleeve with Spiking Stem installed

For Spiking Stem kit options, see Accessories

Barrier Shear Bolt

- Barrier head prevents assembly of sleeve until bolt is torqued completely
- Bolt is designed to shear at 50-60 ft-lbs—no need for a torque wrench
- Standard hex bolt remains for easy removal and disconnectability



Barrier Bolt before shear: Sleeve cannot install

Sample Part Number

P	6	25	JH	A	3	S	P	R4	G
	Current Ratings	Voltage Class	Bus Type		Kit Type		"Z" Sleeve Size	"X" Lug Code	Shield Adapter

Current Ratings
- **6** = 600A (Aluminum Bus; Al/Cu rated lug)
- **9*** = 900A (Copper Bus; Cu rated Compression Lug OR Al/Cu rated Shear Bolt Lug)

Voltage Class
- **25** = 15/25kV
- **35** = 35kV

Bus Type
- **JI** = I Bus (1 Way - 1 Way)
- **JY** = Y Bus (2 Way - 1 Way)
- **JH** = H Bus (2 Way - 2 Way)
- **JU** = U Bus (2 Way - 0 Way)
- **JE** = E Bus (3 Way - 3 Way)
- **JL** = L Bus (1 Way - 1 Way - 90°)

Kit Type
- **2** = Bus, Sleeves, Barrier Bolts and Sleeve Restraint(s)
- **3** = Bus, Sleeves, Barrier Bolts, Lugs and Sleeve Restraint(s)

"Z" Sleeve Size / "X" Lug Code

If "2" was selected with previous choice:

Sleeve Only (No Lug):
Select **Sleeve Size** (**O**, **P**, or **Q**) based on USE RANGE-JSCS TABLE. Leave **Lug Code** blank.

If "3" was selected with previous choice:

Compression Lug Kit:
Select **Sleeve Size** (**O**, **P**, or **Q**) based on USE RANGE-JSCS TABLE. Select **Lug Code** using TABLE X.

Range Taking Kit w/ Shear Bolt Lug*:
Select **Sleeve Size** + **Lug Code** using TABLE XRA-JSCS.

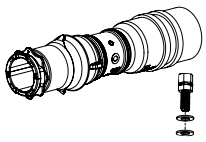
Shield Adapter

Note: Leave blank if Shield Adapter is not needed.
- **G** = Tinned Copper Braid w/ Solder Block and Constant Force Spring

Braid size is #6 for sleeve size "O" and #4 for sleeve sizes "P" and "Q".

For joints with multiple sleeve and/or lug sizes use Kit Options chart below to order sleeve kits as needed.

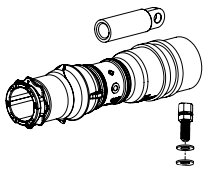
KIT OPTIONS



Cold Shrink Sleeve and Barrier Bolt

P625JSCS1Z — 15/25kV
P635JSCS1Z — 35kV

*To specify "Z" (**Sleeve Size**), follow instructions above for selecting **Sleeve Only (No Lug)***



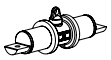
Cold Shrink Sleeve, Barrier Bolt, and Aluminum Lug

P625JSCS2ZX — 15/25kV
P635JSCS2ZX — 35kV

Cold Shrink Sleeve, Barrier Bolt ,and Copper Lug

P925JSCS2ZX — 15/25kV
P935JSCS2ZX — 35kV

*To specify "Z" (**Sleeve Size**) and "X" (**Lug Code**), follow instructions above for selecting **Compression Lug Kit** or **Range Taking Kit w/ Shear Bolt Lug*** For Shield Adapter add "G" after "X" Lug Code. Braid size is #6 for sleeve size "O" and #4 for sleeve sizes "P" and "Q".*



Aluminum I Bus w/Restraints

P625JIR0 — 15/25kV
P635JIR0 — 35kV

Copper I Bus w/Restraints

P925JIR0 — 15/25kV
P935JIR0 — 35kV

I Bus Shown. To order different Bus Types replace "JI" with desired Bus Type as shown above. See Accessories (page 64) for Bus details. Copper not available for JE or JL busses.

* *Range Taking Shear Bolt Lugs are only available in aluminum.*

Sample Part Number *is a 15/25kV 600A Disconnectable "H" Joint kit. Kit includes "H" Bus, Size "P" JSCS Sleeves, Barrier Bolts, Sleeve Restraints, P6ALR4 Range Taking Shear Bolt Lugs, and PCRK-GA-05 Shield Adapter kits.*

Sample Part Number

P	6	25	JH	A	3	LM	23	D	D
	Current Ratings	Voltage Class	Bus Type	Add-Ons	Kit Type	"W" Cable Adapter Size	"X" Lug Code	Shield Adapter	Jacket Seal

6 = 600A (Aluminum Bus and Lugs; For use with Aluminum/Copper conductors)
9 = 900A (Copper Bus and Lugs; For use with Copper conductor only)

25 = 15/25kV
35 = 35kV

JI = I Bus (1 Way - 1 Way)
JY = Y Bus (2 Way - 1 Way)
JH = H Bus (2 Way - 2 Way)
JU = U Bus (2 Way - 0 Way)
JE = E Bus (3 Way - 3 Way)
JL = L Bus (1 Way - 1 Way - 90°)

A = Barrier Bolts & Sleeve Restraint(s)
Note: Omit character to order with regular bolts and without sleeve restraints.

2 = Bus, Sleeves, Barrier Bolts and Sleeve Restraint(s)
3 = Bus, Sleeves, Barrier Bolts, Lugs, Cable Adapters, Retaining Rings and Sleeve Restraint(s)

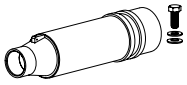
Cable Adapter Size / Lug Code

No Cable Adapter/Lug:
Leave both blank.
Compression Lug Kit:
Select **Cable Adapter Size** using TABLE W1. Select **Lug Code** using TABLE X.
Range Taking Shear Bolt Lug Kit*:
Range Taking Lugs are not available in standard kits. Contact the factory for custom kit number.

No Shield Adapter/Jacket Seal:
Leave both blank.
Shield Adapter/Jacket Seal Kit:
Select **Kit Suffix** from the Jacket Seal/Shield Adapter section in Accessories.

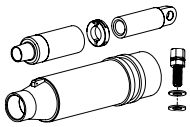
For joints with multiple sleeve and/or lug sizes use Kit Options chart below to order sleeve kits as needed.

KIT OPTIONS



Sleeve, Standard Bolt, Washer, and Grease
P625JS1 — 15/25kV
P635JS1 — 35kV

Sleeve, Barrier Bolt, Washer, and Grease
P625JSB1 — 15/25kV
P635JSB1 — 35kV



Sleeve, Cable Adapter, Aluminum Lug, Retaining Ring, and Barrier Bolt
P625JSB2WX — 15/25kV
P635JSB2WX — 35kV

Sleeve, Cable Adapter, Copper Lug, Retaining Ring, and Barrier Bolt
P925JSB2WX — 15/25kV
P935JSB2WX — 35kV

*To specify "W" (**Cable Adapter Size**) and "X" (**Lug Code**), follow instructions above for selecting **Compression Lug Kit** . Range Taking Lugs not available in standard kits, contact factory for custom kit number. To order with regular bolts omit "B".*

Aluminum I Bus w/Restraints
P625JIR0 — 15/25kV
P635JIR0 — 35kV

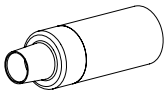
Copper I Bus w/Restraints
P925JIR0 — 15/25kV
P935JIR0 — 35kV

I Bus Shown. To order different Bus Types replace "JI" with desired Bus Type as shown above. See Accessories (page 64) for Bus details. Copper not available for JE or JL busses.

* *Range Taking Shear Bolt Lugs are only available in aluminum (Al/Cu rated).*

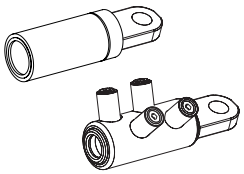
Sample Part Number *is a 15/25kV 600A Disconnectable "H" Joint kit. Kit includes "H" Bus, Sleeves, Cable Adapters, Aluminum Compression Lugs for 750 kcmil Strd/Compr, Retaining Rings, Barrier Bolts, Sleeve Restraints and PCRK12-3 Jacket Seal/Shield Adapter kits.*

Accessories



Cable Adapter

P625CA-W — 15/25kV *Use TABLE W1 to select "W".*
P635CA-W — 35kV *Use TABLE W3 to select "W".*



Aluminum Compression or Shear Bolt Lug (Al/Cu Rated)

P6AL-X — 15/25/35kV *For Compression Lugs, use TABLE X to select "X". For Shear Bolt Lugs, use TABLE RX to select "X".*

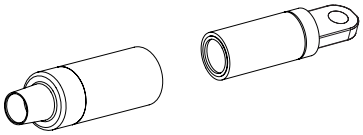
Copper-top Compression Lug (Al/Cu Rated)

P7ALCU-X — 15/25/35kV *Use TABLE X to select "X".*

Copper Compression Lug (for use w/ Copper conductors only)

P9CU-X — 15/25/35kV *Use TABLE X to select "X".*

For a 15/16" threaded lug, add "-15/16" to the end of the lug part number.



Elbow Subunit Kit with Aluminum Compression or Shear Bolt Lug (Al/Cu Rated)

P625SK1WX — 15/25kV
P635SK1WX — 35kV *For Compression Lugs, use TABLE X to select "X". For Shear Bolt Lugs, use TABLE RX to select "X".*

Elbow Subunit Kit with Copper-top Lug (Al/Cu Rated)

P725SK1WX — 15/25kV
P735SK1WX — 35kV *Use TABLE X to select "X".*

Elbow Subunit Kit with Copper Lug (For use w/ Copper conductor only)

P925SK1WX — 15/25kV
P935SK1WX — 35kV *Use TABLE X to select "X".*

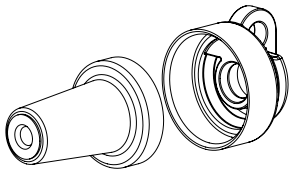
Use TABLE W1 (15/25kV) or W3 (35kV) to select "W".

Aluminum Stud

P625HIP-STUD — 15/25kV
P635HIP-STUD — 35kV

Copper Stud

P925HIP-STUD — 15/25kV
P935HIP-STUD — 35kV



Aluminum Insulating Plug

P625HIP — 15/25kV
P635HIP — 35kV

Aluminum Insulating Plug with installed Stud

P625HIP-S — 15/25kV
P635HIP-S — 35kV

Aluminum Insulating Plug with loose Stud

P625HIP-LS — 15/25kV
P635HIP-LS — 35kV

Copper Insulating Plug

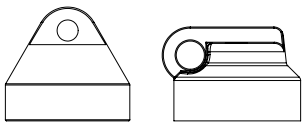
P925HIP — 15/25kV
P935HIP — 35kV

Copper Insulating Plug with installed Stud

P925HIP-S — 15/25kV
P935HIP-S — 35kV

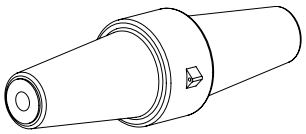
Copper Insulating Plug with loose Stud

P925HIP-LS — 15/25kV
P935HIP-LS — 35kV



Insulating Plug Cap

HIP-CAP — Original Style
HIP-CAP-LP — Low Profile Style



Aluminum Connecting Plug
P625CPR — 15/25kV
P635CPR — 35kV

Aluminum Connecting Plug with installed Stud
P625CPR-S — 15/25kV
P635CPR-S — 35kV

Aluminum Connecting Plug with loose Stud
P625CPR-LS — 15/25kV
P635CPR-LS — 35kV

Copper Connecting Plug
P925CPR — 15/25kV
P935CPR — 35kV

Copper Connecting Plug with installed Stud
P925CPR-S — 15/25kV
P935CPR-S — 35kV

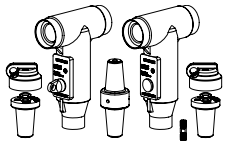
Copper Connecting Plug with loose Stud
P925CPR-LS — 15/25kV
P935CPR-LS — 35kV

Connecting Plugs are installed by engaging 3/8" hex broach. See P6AT Installation Tool in Accessories.

ELBOW SPLICE KITS

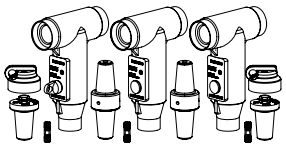
1 Standard Elbow (with Test Point), 2 Insulating Plugs and 1 Stud
62LJT1 — 15/25kV
63LJT1 — 35kV

1 Standard Elbow (without Test Point), 2 Insulating Plugs and 1 Stud
62LJN1 — 15/25kV
63LJN1 — 35kV



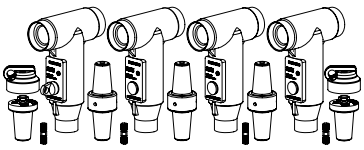
1 Standard Elbows (with Test Point), 1 Standard Elbows (without Test Point), 2 Insulating Plugs, 1 Connecting Plug and 2 Studs
62LJT2 — 15/25kV
63LJT2 — 35kV

2 Standard Elbows (without Test Points), 2 Insulating Plugs, 1 Connecting Plug and 2 Studs
62LJN2 — 15/25kV
63LJN2 — 35kV



1 Standard Elbows (with Test Point), 2 Standard Elbows (without Test Points), 2 Insulating Plugs, 2 Connecting Plugs and 3 Studs
62LJT3 — 15/25kV
63LJT3 — 35kV

3 Standard Elbows (without Test Points), 2 Insulating Plugs, 2 Connecting Plugs and 3 Studs
62LJN3 — 15/25kV
63LJN3 — 35kV

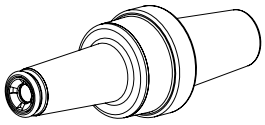


1 Standard Elbows (with Test Point), 3 Standard Elbows (without Test Points), 2 Insulating Plugs, 3 Connecting Plugs and 4 Studs
62LJT4 — 15/25kV
63LJT4 — 35kV

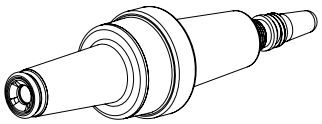
4 Standard Elbows (without Test Points), 2 Insulating Plugs, 3 Connecting Plugs and 4 Studs
62LJN4 — 15/25kV
63LJN4 — 35kV

These Kits do not include Cable Adapters or Lugs. Please order them separately as components or in Subunit Kits.
Kits listed above are supplied with aluminum components. To order with copper components, replace "6" with "9".

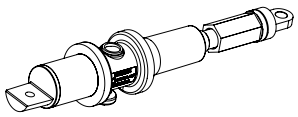
ACCESSORIES



Elbow Tap Plug
P615ETP — 15kV
P625ETP — 25kV

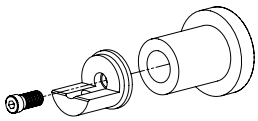


Loadbreak Reducing Tap Plug (LRTP)
P615LRTP — 15kV



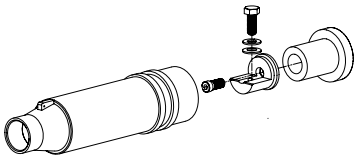
Deadbreak Elbow Extension Adapter
P625DE0 — 15/25kV
P635DE0 — 35kV *Note: Custom Deadbreak Elbow is supplied pre-installed*

CONVERSION KITS



Aluminum Straight Receptacle Adapter
P625SRA — 15/25kV

Copper Straight Receptacle Adapter
P925SRA — 15/25kV

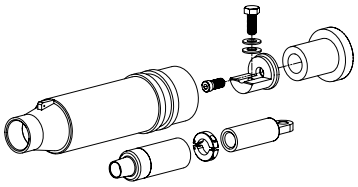


Aluminum Straight Receptacle Adapter, Bolt and Sleeve
P625SRA1 — 15/25kV

Copper Straight Receptacle Adapter, Bolt and Sleeve
P925SRA1 — 15/25kV

Aluminum Straight Receptacle Adapter, Barrier Bolt and Sleeve
P625SRAB1 — 15/25kV

Copper Straight Receptacle Adapter, Barrier Bolt and Sleeve
P925SRAB1 — 15/25kV



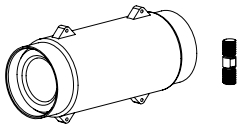
Aluminum Straight Receptacle Adapter, Sleeve, Lug, Bolt, Cable Adapter and Retaining Ring
P625SRA2WX — 15/25kV

Copper Straight Receptacle Adapter, Sleeve, Lug, Bolt, Cable Adapter and Retaining Ring
P925SRA2WX — 15/25kV

Aluminum Straight Receptacle Adapter, Sleeve, Lug, Barrier Bolt, Cable Adapter and Retaining Ring
P625SRAB2WX — 15/25kV

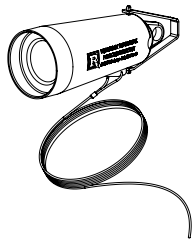
Copper Straight Receptacle Adapter, Sleeve, Lug, Barrier Bolt, Cable Adapter and Retaining Ring
P925SRAB2WX — 15/25kV

Use TABLE W1 to select "W". Use TABLE X to select "X".



Aluminum Bushing Extender with Stud
P625BE — 15/25kV
P635BE — 35kV

Copper Bushing Extender with Stud
P925BE — 15/25kV
P935BE — 35kV

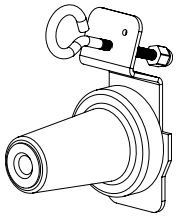


Insulating Cap (without Test Point) and loose Stud
P625ICN — 15/25kV

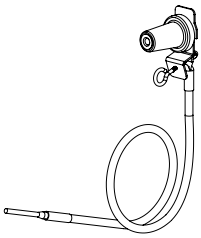
Insulating Cap (with Test Point) and loose Stud
P625IC — 15/25kV

Insulating Cap (without Test Point) and installed Stud
P625ICN-S — 15/25kV
P635IC — 35kV *Note: Stud is molded-in*

Insulating Cap (with Test Point) and installed Stud
P625IC-S — 15/25kV

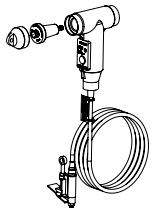


Insulated Parking Bushing
P625IPB — 15/25kV
P635IPB — 35kV



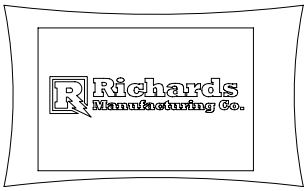
Grounding Bushing
P625GB — 15/25kV
P635GB — 35kV

Supplied with a 6 ft. 4/0 copper cable. Contact the factory if a different size or length is required.



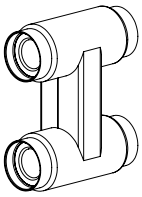
Grounding Elbow with Insulating Plug and installed Stud
P625HHG — 15/25kV

Supplied with a 12 ft. 4/0 copper cable w/Salisbury clamp. Contact the factory if a different size or length is required.



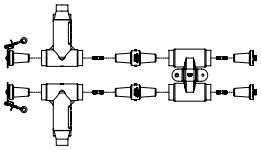
Silicone Grease

P6SL1 — (1) 5 gram packet
P6SL5 — (1) 5 oz. tube
P6SL100 — (100) 5 gram packets
P6SL500 — (100) 5 oz. tubes

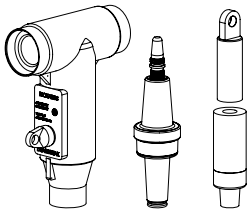


Disconnect Link

P925DL — 15/25kV



CONVERSION KITS



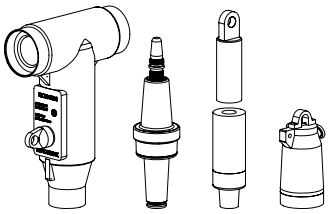
Standard Elbow (with Test Point), with Loadbreak-Reducing Tap Plug (LRTP), Cable Adapter and Lug

61LRTT2WX — 15kV kit

Standard 600A Elbow (without Test Point), with Loadbreak-Reducing Tap Plug (LRTP), Cable Adapter and Lug

61LRTN2WX — 15kV kit

Use TABLE W1 to select "W". Use TABLE X to select "X".



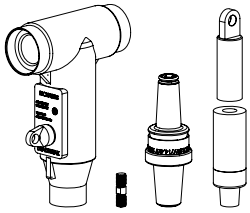
Standard Elbow (with Test Point), with Loadbreak-Reducing Tap Plug (LRTP), Cable Adapter, Lug and Loadbreak Insulating Cap

61LRTT3WX — 15kV kit

Standard 600A Elbow (without Test Point), with Loadbreak-Reducing Tap Plug (LRTP), Cable Adapter, Lug and Loadbreak Insulating Cap

61LRTN3WX — 15kV kit

Use TABLE W1 to select "W". Use TABLE X to select "X".



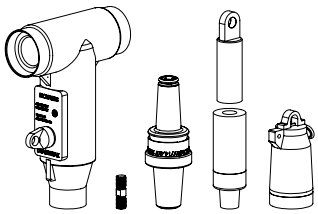
Standard Elbow (with Test Point), with Elbow Tap Plug (ETP), Stud, Cable Adapter and Lug

61ETPT2WX — 15kV kit
62ETPT2WX — 25kV kit

Standard Elbow (without Test Point), with Elbow Tap Plug (ETP), Stud, Cable Adapter and Lug

61ETPN2WX — 15kV kit
62ETPN2WX — 25kV kit

Use TABLE W1 to select "W". Use TABLE X to select "X".



Standard Elbow (with Test Point), with Elbow Tap Plug (ETP), Stud, Cable Adapter, Lug and Loadbreak Insulating Cap

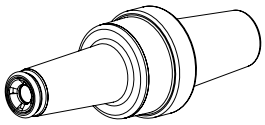
61ETPT3WX — 15kV kit
62ETPT3WX — 25kV kit

Standard Elbow (without Test Point), with Elbow Tap Plug (ETP), Stud, Cable Adapter, Lug and Loadbreak Insulating Cap

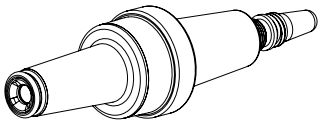
61ETPN3WX — 15kV kit
62ETPN3WX — 25kV kit

Use TABLE W1 to select "W". Use TABLE X to select "X".

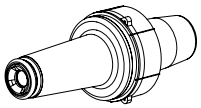
To Order any of these kits without cable adapter and lug, omit characters "W" and "X".



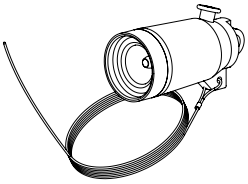
Elbow Tap Plug
P615ETP — 15kV
P625ETP — 25kV



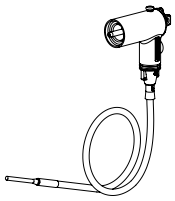
Loadbreak Reducing Tap Plug (LRTP)
P615LRTP — 15kV



Loadbreak Bushing Insert
21LBI — 15kV

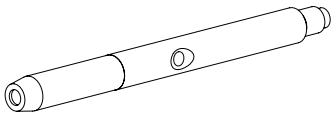


Loadbreak Insulating Cap (w/drain wire)
21LBICG — 15kV
22LBICG — 25kV

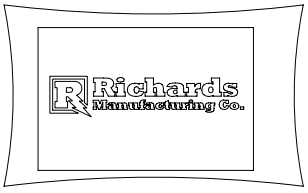


Grounding Elbow (Yellow)
21LGN
Supplied with a 6 ft. 1/0 copper cable. Contact the factory if a different size or length is required.

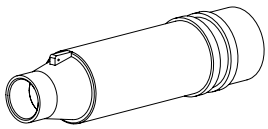
Loadbreak Compression Lug
P2ALCU-X — Copper-top (Al/Cu Rated)
P2CU-X — Copper (For use with Copper conductors only)
Use TABLE X to select "X".



Loadbreak Elbow Probe
P2100EP — 15kV

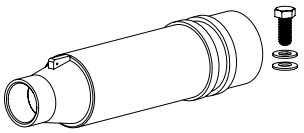


Silicone Grease
P6SL1 — (1) 5 gram packet
P6SL5 — (1) 5 oz. tube
P6SL100 — (100) 5 gram packets
P6SL500 — (100) 5 oz. tubes



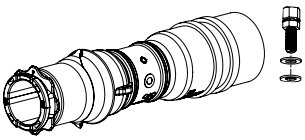
Sleeve
P625JS0 — 15/25kV
P635JS0 — 35kV
To order a sleeve with 2 test points, contact the factory.

Sleeve (with Test Point)
P625JS0-TP — 15/25kV
P635JS0-TP — 35kV

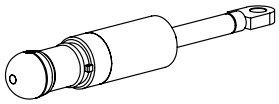


Sleeve and Standard Bolt
P625JS1 — 15/25kV
P635JS1 — 35kV

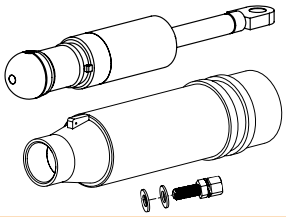
Sleeve and Barrier Bolt
P625JSB1 — 15/25kV
P635JSB1 — 35kV



Cold Shrink Sleeve and Barrier Bolt
P625JSCS1Z — 15/25kV
P635JSCS1Z — 35kV
To specify "Z" see USE RANGE-JSCS TABLE.

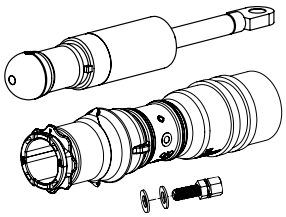


Spiking Stem Assembly
92DSS0 — 15/25kV
93DSS0 — 35kV



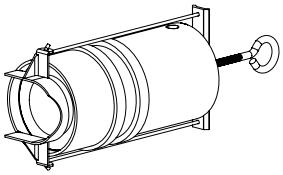
Spiking Stem Assembly, Sleeve, and Standard Bolt
92DSS1 — 15/25kV
93DSS1 — 35kV

Spiking Stem Assembly, Sleeve, and Barrier Bolt
92DSSB1 — 15/25kV
93DSSB1 — 35kV



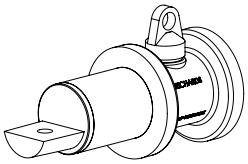
Spiking Stem Assembly, Cold Shrink Sleeve*, and Barrier Bolt
92DSSB1-CS — 15/25kV
93DSSB1-CS — 35kV

* *Special sleeve required. DSS not compatible with standard JSCS Series.*

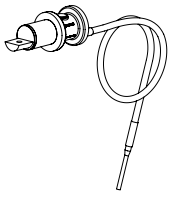


Joint Insulating Cap
P625JIC — 15/25kV
P635JIC — 35kV

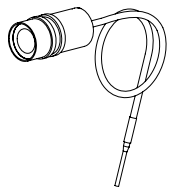
Joint Insulating Cap (without Bail)
P625JIC-NB — 15/25kV
P635JIC-NB — 35kV



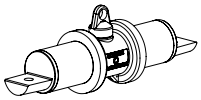
Joint Insulating Plug
P625JIP — 15/25kV
P635JIP — 35kV



Joint Grounding Plug
P6JGP
Supplied with a 6 ft. 4/0 copper cable. Contact the factory if a different size or length is required.

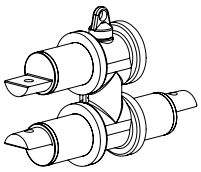


Joint Grounding Cap
P6JGC
Supplied with a 6 ft. 4/0 copper cable. Contact the factory if a different size or length is required.



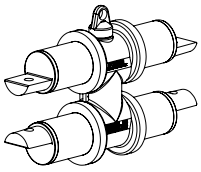
Aluminum I Bus
P625JI0 — 15/25kV
P635JI0 — 35kV

Copper I Bus
P925JI0 — 15/25kV
P935JI0 — 35kV



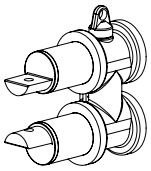
Aluminum Y Bus
P625JY0 — 15/25kV
P635JY0 — 35kV

Copper Y Bus
P925JY0 — 15/25kV
P935JY0 — 35kV



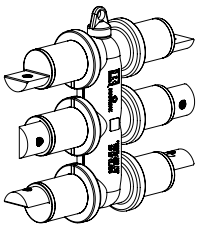
Aluminum H Bus
P625JH0 — 15/25kV
P635JH0 — 35kV

Copper H Bus
P925JH0 — 15/25kV
P935JH0 — 35kV

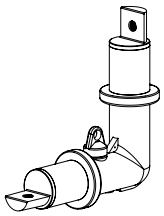


Aluminum U Bus
P625JU0 — 15/25kV
P635JU0 — 35kV

Copper U Bus
P925JU0 — 15/25kV
P935JU0 — 35kV

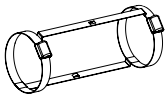


Aluminum E Bus
P625JE0 — 15/25kV
P635JE0 — 35kV

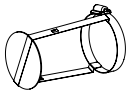


Aluminum L Bus
P625JL0 — 15/25kV
P635JL0 — 35kV

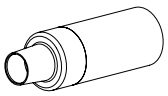
F Style Sleeve Restraint
P6JRF



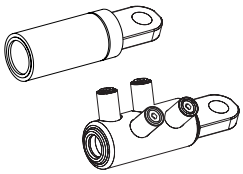
I Style Sleeve Restraint
P6JRI



E Style Sleeve Restraint
P6JRE



Cable Adapter
P625CA-W — 15/25/35kV* *Use TABLE W1 to select "W".*
* *Disconnectable Joints utilize the same cable adapter regardless of voltage class.*



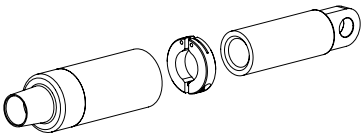
Aluminum Compression or Shear Bolt Lug (Al/Cu Rated)
P6AL-X — 15/25/35kV *For Compression Lugs, use TABLE X to select "X". For Shear Bolt Lugs, use TABLE RX to select "X".*

Copper-top Compression Lug (Al/Cu Rated)
P7ALCU-X — 15/25/35kV *Use TABLE X to select "X".*

Copper Compression Lug (for use w/ Copper conductors only)
P9CU-X — 15/25/35kV *Use TABLE X to select "X".*

For a 15/16" threaded lug, add "-15/16" to the end of the lug part number.

Retaining Ring
P6JR-X — 15/25/35kV
Use TABLE X to select "X".



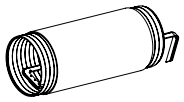
Sleeve Subunit Kit with Aluminum Compression or Shear Bolt Lug (Al/Cu Rated)
P625SK2WX — 15/25/35kV* *For Compression Lugs, use TABLE X to select "X". For Shear Bolt Lugs, use TABLE RX to select "X".*

Sleeve Subunit Kit with Copper-top Lug (Al/Cu Rated)
P725SK2WX — 15/25/35kV* *Use TABLE X to select "X".*

Sleeve Subunit Kit with Copper Lug (For use w/ Copper conductor only)
P925SK2WX — 15/25/35kV* *Use TABLE X to select "X". Use TABLE W1 to select "W".*
* *Disconnectable Joints utilize the same cable adapter regardless of voltage class.*

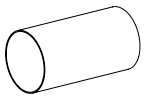
Barrier Bolt (with Washers)
P6JPB-2 — for JSCS Series Cold Shrink Sleeves

Barrier Bolt (with Washers and Vent Rod)
P6JPB-1 — for JS Series Standard Sleeves



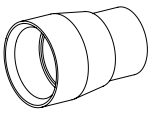
Cold Shrink Seal

PCRK-005-1 (Kit Suffix AC) — For Cable Adapter Size E-J and all Loadbreak Elbow Sizes
PCRK-005-2 (Kit Suffix AD) — For Cable Adapter Size K-PQ
PCRK-005-3 (Kit Suffix AG) — For 35kV Cables 1250kcmil and larger



Heat Shrink Seal

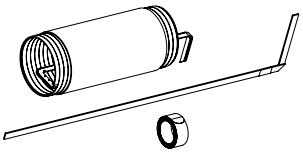
PCRK-001-1 (Kit Suffix AE) — For Cable Adapter Size E-J and all Loadbreak Elbow Sizes
PCRK-001-2 (Kit Suffix AF) — For Cable Adapter Size K-PQ



Tape/Lead Adapter

10TL-W — 15kV

Use TABLE W1 to select "W".



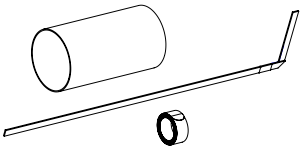
Cold Shrink and #6 AWG Tinned Copper Braid (w/Constant Force Spring)

PCRK16-2 (Kit Suffix BC) — For Cable Adapter Size E-J and all Loadbreak Elbow Sizes

Cold Shrink and #4 AWG Tinned Copper Braid (w/Constant Force Spring)

PCRK12-3 (Kit Suffix DD) — For Cable Adapter Size K-PQ
PCRK12-6 (Kit Suffix DG) — For 35kV Cables 1250kcmil and larger

Supplied with a 36" braid. Contact the factory if a different length is required.



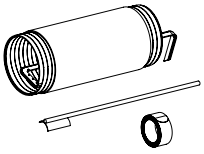
Heat Shrink and #6 AWG Tinned Copper Braid (w/Constant Force Spring)

PCRK16-4 (Kit Suffix BE) — For Cable Adapter Size E-J and all Loadbreak Elbow Sizes

Heat Shrink and #4 AWG Tinned Copper Braid (w/Constant Force Spring)

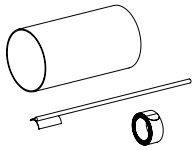
PCRK12-5 (Kit Suffix DF) — For Cable Adapter Size K-PQ

Supplied with a 36" braid. Contact the factory if a different length is required.



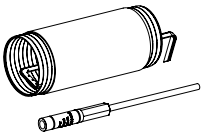
Cold Shrink and Copper Rod (w/Constant Force Spring)

PCRK46-2 (Kit Suffix FC) — For Cable Adapter Size E-J and all Loadbreak Elbow Sizes
PCRK42-3 (Kit Suffix GD) — For Cable Adapter Size K-PQ



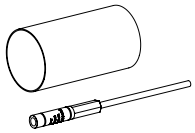
Heat Shrink and Copper Rod (w/Constant Force Spring)

PCRK46-4 (Kit Suffix FE) — For Cable Adapter Size E-J and all Loadbreak Elbow Sizes
PCRK42-5 (Kit Suffix GF) — For Cable Adapter Size K-PQ



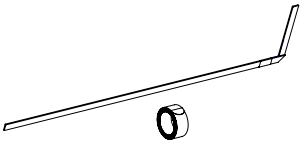
Cold Shrink and Ground Rod and Barrel

PCRK56-2 (Kit Suffix HC) — For Cable Adapter Size E-J and all Loadbreak Elbow Sizes
PCRK52-3 (Kit Suffix JD) — For Cable Adapter Size K-PQ



Heat Shrink and Ground Rod and Barrel

PCRK56-4 (Kit Suffix HE) — For Cable Adapter Size E-J and all Loadbreak Elbow Sizes
PCRK52-5 (Kit Suffix JF) — For Cable Adapter Size K-PQ



#6 AWG Tinned Copper Braid (w/Constant Force Spring)

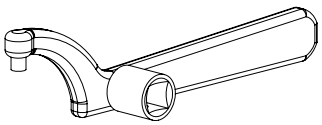
PCRK-GA-03

#4 AWG Tinned Copper Braid (w/Constant Force Spring)

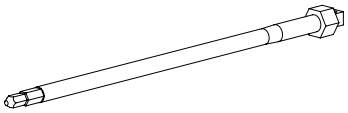
PCRK-GA-05

Supplied with a 36" braid. Contact the factory if a different length is required.

Note: Use Kit Suffix when ordering Seal/Ground Adapter option as an add on to a kit. Follow appropriate product Ordering Information page to determine where to add Suffix to kit part number.

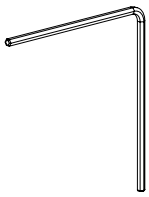


Spanner Wrench
P6SW



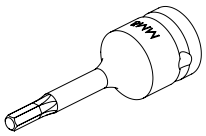
Multi-Hex Assembly Tool
P6AT

3/8" and 5/16" tip.
3/4" Hex drive and 1/2" Square drive head.
MUST be used with a torque wrench.
For use with all accessories.



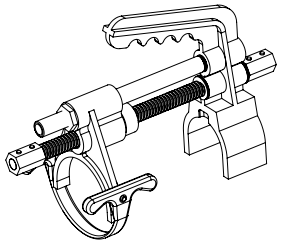
Hex Tool
P650DAT

3/8" Disposable assembly tool – single use.
Yields at 50-60 ft-lbs.
Use to install R-Stack, connecting plugs, ETP and some R-800s.

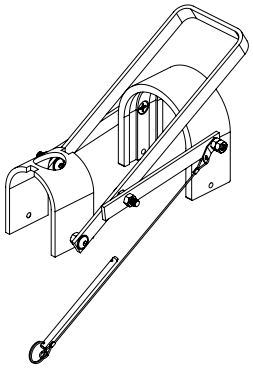


Hex Impact Driver
1/2D5HIS — 1/2-inch drive to 5-mm hex drive
1/2D6HIS — 1/2-inch drive to 6-mm hex drive
1/2D8HIS — 1/2-inch drive to 8-mm hex drive

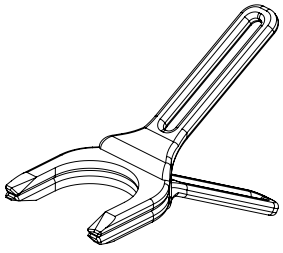
For use with SSCCR and P6ALR Series



Screw-Type Disconnectable Joint Sleeve Assembly Tool
P6JAT3

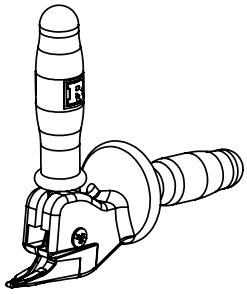


Lever-Type Disconnectable Joint Sleeve Assembly Tool
P6JAT1-1



Cold Shrink Core Removal Tool
P6AT-CS2-0 — Size "0"
P6AT-CS2-P — Size "P"
P6AT-CS2-Q — Size "Q"

Cold Shrink Core Removal Tool Kit with Canvas Bag
P6AT-CS2 — Include tool sizes "0", "P", and "Q"

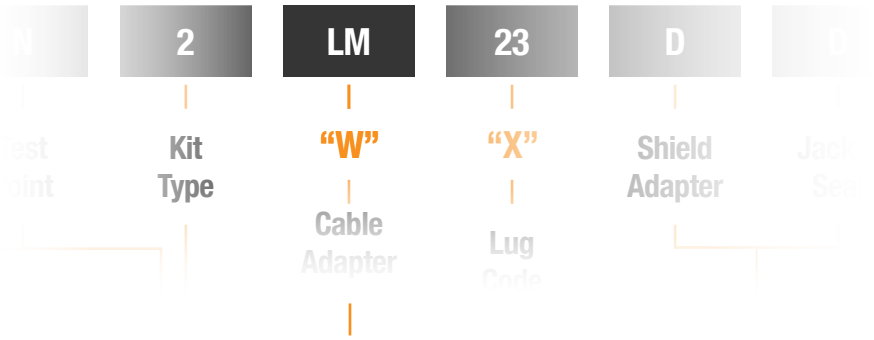


Cold Shrink Removal Tool with Canvas Bag

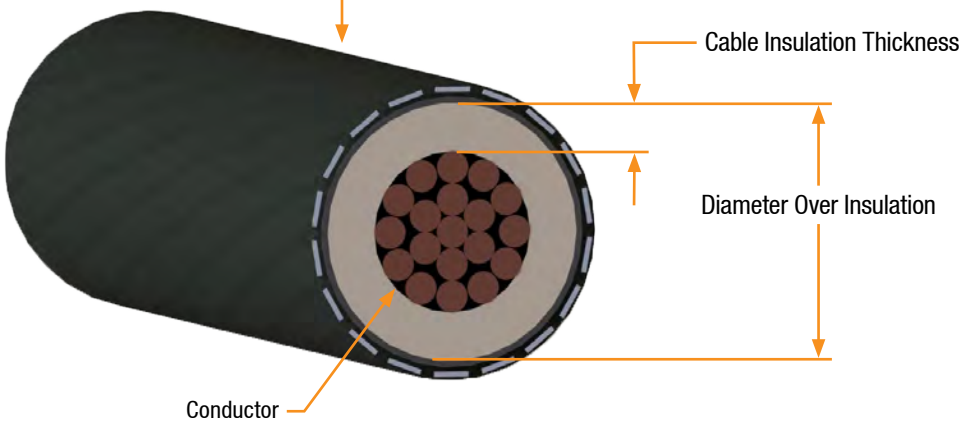
P6AT-RT

Replacement blades available. Contact the factory.

Selection Guide



How to Select "W" or "Z"



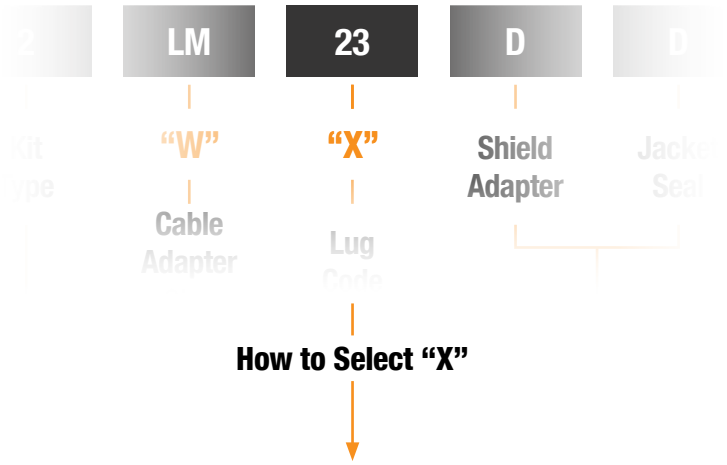
Any product whose part number contains "W" or "Z" must be carefully sized to the cable being utilized. These products are installed over cable insulation and thus a proper fit is necessary to ensure electrical integrity.

In order to correctly size these components, the diameter over the cable insulation must be accurately determined. The following are recommended methods for determining the diameter over insulation:

1. If available, refer to the design specifications of the cable being used. Locate the minimum diameter over insulation or determine minimum using provided nominal dimension and tolerances.
2. If the cable conforms to AEIC or ICEA standards, refer to TABLE 2 to determine the minimum diameter over insulation. There are different charts for stranded, compressed and compact conductors—be sure to refer to the correct chart.
3. If specifications for the cable are unavailable, a measurement can be taken directly on the prepared cable being used for installation. When measuring the cable insulation, use a proper measurement device. Avoid damaging the insulation in the process and clean properly afterwards. When using this method, keep in mind there are manufacturing tolerances in cable insulation. Thus, each prepared end of cable should be checked to ensure the correct size is being used.

Once the correct minimum diameter over insulation is determined:

1. For push-on products (Cable Adapters and Loadbreak Elbows):
   a) Locate appropriate TABLE W based on product family. Select "W" such that the minimum cable diameter (determined above) falls within the listed range. You may choose the largest option that satisfies this criteria—this will make installation as easy as possible while ensuring an interference fit.
   b) Replace "W" in the part number with the selected character(s).
2. For cold shrink products:
   a) Locate appropriate USE RANGE TABLE based on product family. Select housing letter size based on voltage class, insulation thickness, and conductor size. Be sure to check that the minimum cable diameter (determined above) is greater than the listed minimum insulation diameter for the housing size selected. Be sure to consider other cable sizes on your system when selecting a housing size. One housing size may provide greater coverage.
   b) Replace "Z" in the part number with the selected character.



All Splices and Elbows in this catalog are field-installed with a connector or lug. Proper selection of the size and type of connector or lug is necessary for electrical and thermal performance.

Deadbreak Elbows and Disconnectable Joints:

P6AL Aluminum Compression Lugs are tin-plated and rated for use on both aluminum and copper conductors. Proper installation tools and dies are required to crimp these connectors.

P6ALR Aluminum Shear Bolt Lugs are tin-plated and rated for use on both aluminum and copper conductors. These range-taking lugs accept a large range of conductor sizes. Metric hex keys are used to engage the shear bolts.

P7ALCU Copper-top Compression Lugs are made with an aluminum barrel and copper spade and rated for use with aluminum and copper conductors. This lug allows customers with aluminum cable to provide an all-copper connection at the bushing interface. Proper installation tools and dies are required to crimp these connectors.

P9CU Copper Compression Lugs are tin-plated and rated for use with copper conductors only. These lugs are for 900A-rated assemblies. Proper installation tools and dies are required to crimp these connectors.

200A Loadbreak Elbows:

P2ALCU Copper-top Compression Lugs are made with an aluminum barrel and copper spade and rated for use on both aluminum and copper conductors. These spades comes with a threaded hole for assembly with Loadbreak Probes. Proper installation tools and dies are required to crimp these connectors.

P2CU Copper Compression Lugs are for use with copper conductors only. The threaded hole in the spade engages with Loadbreak Probes. Proper installation tools and dies are required to crimp these connectors.

SSC Series Splices:

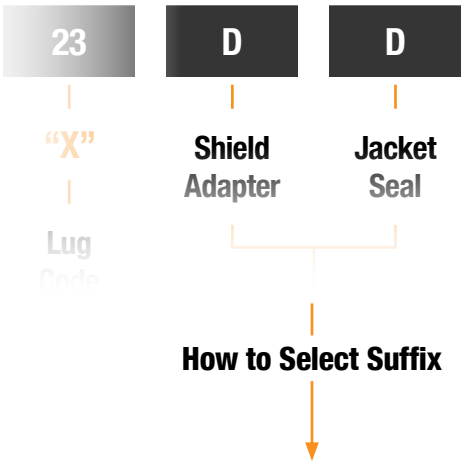
63SSCC Aluminum Shear Bolt Connectors are tin-plated and rated for use on both aluminum and copper conductors. Shear bolts are engaged using a socket head. These connectors must be paired properly with the selected Housing Size of the SSC Series Splice.

63SSCCR Aluminum Shear Bolt Connectors are tin-plated and rated for use on both aluminum and copper conductors. These range-taking connectors accept a large range of conductor sizes. Metric hex keys are used to engage the shear bolts. These connectors must be paired properly with the selected Housing Size of the SSC Series Splice.

93SSCC Copper Shear Bolt Connectors are for use with copper conductors only. Shear bolts are tightened using a socket head. These connectors must be paired properly with the selected Housing Size of the SSC Series Splice.

The following are recommended methods for properly selecting a connector/lug:

1. Identify the conductor size, stranding type (stranded, compressed or compact) and material type (aluminum or copper).
2. Identify the appropriate connector/lug for the application. Be sure the connector/lug you select is appropriate for the conductor material. For example, if the conductor is aluminum, only consider connectors/lugs rated for use on aluminum conductors.
3. Refer to the appropriate table to select connector/lug size.
4. Replace "X" in the part number with the selected connector/lug size.

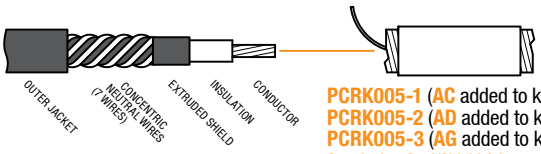


Most medium voltage cable has a protective jacket over the cable neutrals. In order to install an Elbow or Splice, the cable jacket must be cut open exposing interior layers of the cable. This jacket should be re-sealed to prevent water ingress into the cable using a Jacket Seal kit. Depending on the cable construction and local installation practices, the cable neutrals may also require special treatment. For example, when terminating a section of tape-shielded power cable with a Deadbreak Elbow, a Shield Adapter kit is used to connect the tape shield to ground without disturbing the integrity of the seal.

Refer to the illustrations below and the Jacket Seal/Shield Adapter section in Accessories to select an appropriate kit. Jacket Seal/Shield Adapter kits can be ordered as part of a kit or separately.

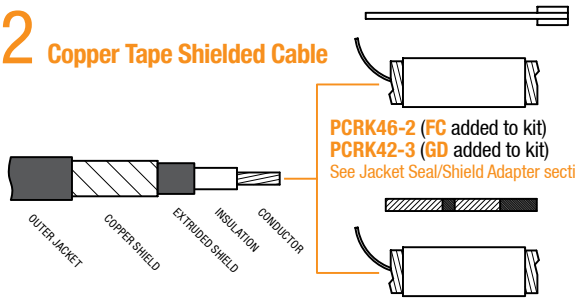
Note: Some products come with an integral jacket seal and do not require a separate seal kit. See Accessories for Shield Adapter only kits.

1 Jacketed Concentric Neutral Cable



PCRK005-1 (**AC** added to kit)
PCRK005-2 (**AD** added to kit)
PCRK005-3 (**AG** added to kit)
See Jacket Seal/Shield Adapter section in Accessories

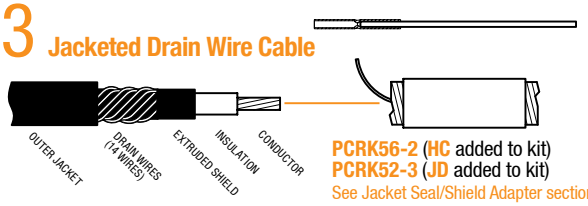
2 Copper Tape Shielded Cable



PCRK46-2 (**FC** added to kit)
PCRK42-3 (**GD** added to kit)
See Jacket Seal/Shield Adapter section in Accessories

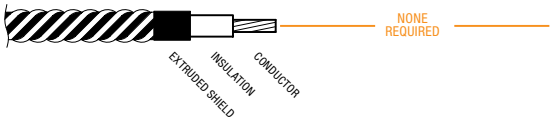
PCRK16-2 (-BC added to kit)
PCRK12-3 (-DD added to kit)
PCRK12-6 (-DG added to kit)
See Jacket Seal/Shield Adapter section in Accessories

3 Jacketed Drain Wire Cable

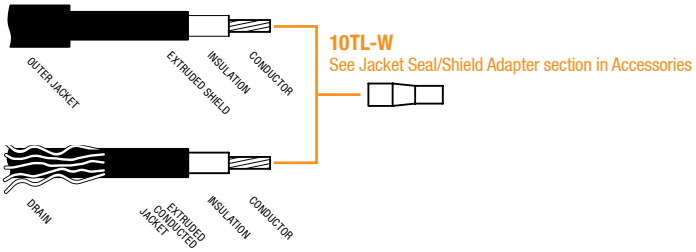


PCRK56-2 (**HC** added to kit)
PCRK52-3 (**JD** added to kit)
See Jacket Seal/Shield Adapter section in Accessories

4 Concentric Neutral Cable



5 Lead Jacketed Cable



10TL-W
See Jacket Seal/Shield Adapter section in Accessories

Table W1

For Use with the Following Part Families*	Cable Insulation Diameter				"W"
	MINIMUM		MAXIMUM		
	IN	mm	IN	mm	
62LCN/LCT P625SRA P625CA/SK/JS 62CBN/CBT 62BJN/BJT 62LJN/LJT 618MN/MT/FN/FT 628MN/MT/FN/FT 62HFE 61ETPT/ETPN P615JI/JY/JH/JU P625JI/JY/JH/JU P635JI/JY/JH/JU	0.530	13.46	0.675	17.15	E
	0.640	16.26	0.820	20.83	F
	0.760	19.30	0.950	24.13	G
	0.850	21.59	1.050	26.67	H
	0.980	24.89	1.180	29.97	J
	1.090	27.69	1.310	33.27	K
	1.180	29.97	1.465	37.21	L
	1.280	32.51	1.430	36.32	LM
	1.370	34.80	1.630	41.40	M
	1.480	37.59	1.700	43.18	MN
	1.515	38.48	1.780	45.21	N
	1.665	42.29	1.785	45.34	PA
	1.725	43.82	1.935	49.15	P
	1.795	45.59	1.935	49.15	PQ

Table W2

For Use with the Following Part Families	Cable Insulation Diameter				"W"
	MINIMUM		MAXIMUM		
	IN	mm	IN	mm	
21LBN/LBT	0.575	14.61	0.740	18.80	A
	0.635	16.13	0.905	22.99	B
	0.830	21.08	1.060	26.92	C
	0.930	23.62	1.220	30.99	D

Table W3

For Use with the Following Part Families*	Cable Insulation Diameter				"W"
	MINIMUM		MAXIMUM		
	IN	mm	IN	mm	
63LCN/LCT P635CA/SK1 63CBN/CBT 63BJN/BJT 63LJN/LJT	0.850	21.59	1.050	26.67	H
	0.980	24.89	1.180	29.97	J
	1.090	27.69	1.310	33.27	K
	1.180	29.97	1.465	37.21	L
	1.280	32.51	1.430	36.32	LM
	1.370	34.80	1.630	41.40	M
	1.480	37.59	1.700	43.18	MN
	1.515	38.48	1.780	45.21	N
	1.725	43.82	1.935	49.15	P
	1.900	48.26	2.120	53.85	Q
	2.000	50.80	2.235	56.77	R

* *Copper-top and 900A Copper versions of these kits are not listed but apply ("6" changed to "7" or "9")*

Table X		
Cable Size	Stranded/Compressed Cable "X"	Compact/Solid Cable "X"
#4	5	4
#3	6	5
#2	7	6
#1	8	7
1/0 AWG	9	8
2/0 AWG	10	9
3/0 AWG	11	10
4/0 AWG	12	11
250 kcmil	13	12
300 kcmil	14	13
350 kcmil	15	14
400 kcmil	16	15
450 kcmil	17	16
500 kcmil	18	17
550 kcmil	20	18
600 kcmil	20	18
650 kcmil	211*	20
700 kcmil	22	20
750 kcmil	23	211*
800 kcmil	24	22
900 kcmil	26	23
1000 kcmil	28	26
1100 kcmil	285	contact factory
1250 kcmil	29	contact factory
1500 kcmil	30	contact factory

Table RX				
Part Number	Nominal Conductor Range*		"X"**	Hex Key Size
	MINIMUM	MAXIMUM		
P6ALR1	#3	300	R1	5 mm
P6ALR2	1/0	500 Cmpt	R2	6 mm
P6ALR3	3/0	600	R3	8 mm
P6ALR4	350	750	R4	8 mm
P6ALR5	600	1250	R5	8 mm
P6ALR6***	1500		R6	8 mm

* *Unless otherwise noted conductor size listed is stranded/compressed/compact.*
** *To order any standard Deadbreak Elbow or Disconnectable Joint kit with P6ALR Lug, use this column to select character "X".*
*** *For use on applications other than 35kV LC Series (Deadbreak Elbow), contact the factory.*

* *Use '21' for copper P9CU-X Series*

Notes:
1. 200A Loadbreak Elbows available up to 250kcmil Stranded/Compressed or 300kcmil Compact only.
2. 600A Deadbreak Elbows available starting at size '6'.

TABLE XRA-25CSH & USE RANGE-25CSH

The following product sizing information is based on AEIC/ICEA dimensional ranges. The true range of the CSH/CS8 Series on a particular cable construction may vary. To confirm sizing on non-standard cables, or to check sizing on cables that fall just outside our min or max, contact the factory.

Table XRA-25CSH — Range Taking Lug Selection†

Elbow Size + Lug Code	Voltage Class	Kit Conductor Range	
		MINIMUM	MAXIMUM
OR1	15kV (175 mil)	1/0 AWG‡	300 kcmil
	15kV (220 mil)	#2 AWG‡	
	25kV (260 mil)	#3 AWG	
OR2	15kV (175/220 mil)	1/0 AWG‡	500 kcmil Cmpt
	25kV (260 mil)		350 kcmil
PR3	15kV (175/220 mil)	350 kcmil‡	600 kcmil
	25kV (260 mil)	4/0 AWG	
PR4	15kV (175/220 mil)	350 kcmil‡	750 kcmil
	25kV (260 mil)		
QR4	15kV (175 mil)	750 kcmil	750 kcmil
	15kV (220 mil)	600 kcmil	
	25kV (260 mil)	500 kcmil‡	
QR5	15kV (175 mil)	750 kcmil	1250 kcmil
	15kV (220 mil)	600 kcmil	
	25kV (260 mil)		

† *Range Taking Shear Bolt Lugs are only available in aluminum (Al/Cu rated).*
‡ *May not fit some compact/compressed cables. See USE RANGE table below.*

Use Range-25CSH Table

Elbow Size	Voltage Class	Conductor Size	
		MINIMUM	MAXIMUM
O	15kV (175 mil)	1/0 AWG**	500 kcmil
Minimum Insulation Diameter = 0.725”*	15kV (220 mil)	#2 AWG***	
	25kV (260 mil)	#4 AWG	350 kcmil
P	15kV (175/220 mil)	350 kcmil****	750 kcmil
Minimum Insulation Diameter = 0.990”	25kV (260 mil)	4/0 AWG	
Q	15kV (175 mil)	750 kcmil	1500 kcmil
Minimum Insulation Diameter = 1.268”	15kV (220 mil)	600 kcmil	
	25kV (260 mil)	500 kcmil*****	

* *15kV cables with insulation diameter above 0.640 can be accommodated with Size ‘O’ with shim kit. Contact the factory for more information.*
** *May not fit some 1/0 AWG compressed/compact 100% (175mil) insulated power cables. Check minimum insulation diameter to confirm.*
*** *May not fit some #2 AWG compact 133% (220 mil) insulated power cables. Check minimum insulation diameter to confirm.*
**** *May not fit some 350 kcmil compact 100% (175 mil) insulated power cables. Check minimum insulation diameter to confirm.*
***** *May not fit some 500 kcmil compact insulated power cables. Check minimum insulation diameter to confirm.*

TABLE XRA-35CSH & USE RANGE-35CSH

The following product sizing information is based on AEIC/ICEA dimensional ranges. The true range of the 35CSH Series on a particular cable construction may vary. To confirm sizing on non-standard cables, or to check sizing on cables that fall just outside our min or max, contact the factory.

Table XRA-35CSH — Range Taking Lug Selection†

Elbow Size + Lug Code	Voltage Class	Kit Conductor Range	
		MINIMUM	MAXIMUM
PR1	35kV (345 mil)	1/0 AWG	300 kcmil
PR2	35kV (345 mil)	1/0 AWG	500 kcmil Cmpt
PR3	35kV (345 mil)	3/0 AWG	600 kcmil
PR4	35kV (345 mil)	350 kcmil	500 kcmil
QR4	35kV (345 mil)	350 kcmil	750 kcmil
QR5	35kV (345 mil)	600 kcmil	1250 kcmil
QR6	35kV (345 mil)	1500 kcmil	1500 kcmil

† *Range Taking Shear Bolt Lugs are only available in aluminum (Al/Cu rated).*

Use Range-35CSH Table

Elbow Size	Voltage Class	Conductor Size	
		MINIMUM	MAXIMUM
P Minimum Insulation Diameter = 0.990”	35kV (345 mil)	1/0 AWG	500 kcmil
Q Minimum Insulation Diameter = 1.268”	35kV (345 mil)	350 kcmil	1500 kcmil

TABLE XRA-SSC & USE RANGE-SSC

The following product sizing information is based on AEIC/ICEA dimensional ranges. The true range of the SSC Series on a particular cable construction may vary. To confirm sizing on non-standard cables, or to check sizing on cables that fall just outside our min or max, contact the factory.

Table XRA-SSC — Range Taking Connector Selection†

Connector Code "X"	Splice Size	Conductor Size		Hex Key Size
		MINIMUM	MAXIMUM	
R1	O	#3 AWG	300 kcmil	5 mm
R2		1/0 AWG	500 kcmil Cmpt	6 mm
R1	P	1/0 AWG	500 kcmil Cmpt	6 mm
R2		350 kcmil	750 kcmil	8 mm
R1	Q	350 kcmil	750 kcmil	8 mm
R2		600 kcmil	1250 kcmil	8 mm

† *Range Taking Shear Bolt Connectors are only available in aluminum (Al/Cu rated).*

Use Range-SSC Table

Splice Size	Voltage Class	Conductor Size	
		MINIMUM	MAXIMUM
O Minimum Insulation Diameter = 0.725"*	15kV (175 mil)	1/0 AWG**	350 kcmil
	15kV (220 mil)	#2 AWG***	250 kcmil
	25kV (260 mil)	#4 AWG	4/0 AWG
P Minimum Insulation Diameter = 0.990"	15kV (175/220 mil)	350 kcmil****	600 kcmil
	25kV (260 mil)	4/0 AWG	500 kcmil
	35kV (345 mil)	1/0 AWG	250 kcmil
Q Minimum Insulation Diameter = 1.268"	15kV (175 mil)	750 kcmil	1100 kcmil
	15kV (220 mil)	600 kcmil	
	25kV (260 mil)	500 kcmil*****	
	35kV (345 mil)	350 kcmil	750 kcmil

* *15kV cables with insulation diameter above 0.640 can be accommodated with Size 'O' with shim kit. Contact the factory for more information.*
** *May not fit some 1/0 AWG compressed/compact 100% (175mil) insulated power cables. Check minimum insulation diameter to confirm.*
*** *May not fit some #2 AWG compact 133% (220 mil) insulated power cables. Check minimum insulation diameter to confirm.*
**** *May not fit some 350 kcmil compact 100% (175 mil) insulated power cables. Check minimum insulation diameter to confirm.*
***** *May not fit some 500 kcmil compact insulated power cables. Check minimum insulation diameter to confirm.*

TABLE XRA-JSCS & USE RANGE-JSCS

The following product sizing information is based on AEIC/ICEA dimensional ranges. The true range of the JSCS Series on a particular cable construction may vary. To confirm sizing on non-standard cables, or to check sizing on cables that fall just outside our min or max, contact the factory.

Table XRA-JSCS — Range Taking Lug Selection†

Sleeve Size + Lug Code	Voltage Class	Kit Conductor Range	
		MINIMUM	MAXIMUM
OR1	15kV (175 mil)	1/0 AWG‡	300 kcmil
	15kV (220 mil)	#2 AWG‡	
	25kV (260 mil)	#3 AWG	
OR2	15kV (175/220 mil)	1/0 AWG‡	500 kcmil Cmpt
	25kV (260 mil)		350 kcmil
PR2	15kV (175/220mil)	350 kcmil‡	500 Cmpt
	25kV (260mil)	4/0 AWG	
	35kV (345mil)	1/0 AWG	
PR3	15kV (175/220mil)	350 kcmil‡	600 kcmil
	25kV (260 mil)	4/0 AWG	
	35kV (345 mil)		500 kcmil
PR4	15kV (175/220mil)	350 kcmil‡	750 kcmil
	25kV (260mil)		
	35kV (345mil)		500 kcmil
QR4	15kV (175mil)	750 kcmil	750 kcmil
	15kV (220mil)	600 kcmil	
	25kV (260mil)	500kcmil‡	
	35kV (345mil)	350 kcmil	
QR5	15kV (175mil)	750 kcmil	1250 kcmil
	15kV (220mil)	600 kcmil	
	25kV (260mil)		
	35kV (345mil)		

† *Range Taking Shear Bolt Lugs are only available in aluminum (Al/Cu rated).*
‡ *May not fit some compact/compressed cables. See USE RANGE table below.*

Use Range-JSCS Table

Sleeve Size	Voltage Class	Conductor Size	
		MINIMUM	MAXIMUM
O Minimum Insulation Diameter = 0.725”*	15kV (175 mil)	1/0 AWG**	500 kcmil
	15kV (220 mil)	#2 AWG***	
	25kV (260 mil)	#4 AWG	350 kcmil
P Minimum Insulation Diameter = 0.990”	15kV (175/220 mil)	350 kcmil****	750 kcmil
	25kV (260 mil)	4/0 AWG	
	35kV (345 mil)	1/0 AWG	500 kcmil
Q Minimum Insulation Diameter = 1.268”	15kV (175 mil)	750 kcmil	1500 kcmil
	15kV (220 mil)	600 kcmil	
	25kV (260 mil)	500 kcmil*****	
	35kV (345 mil)	350 kcmil	1250 kcmil

* *15kV cables with insulation diameter above 0.640 can be accommodated with Size ‘O’ with shim kit. Contact the factory for more information.*
** *May not fit some 1/0 AWG compressed/compact 100% (175mil) insulated power cables. Check minimum insulation diameter to confirm.*
*** *May not fit some #2 AWG compact 133% (220 mil) insulated power cables. Check minimum insulation diameter to confirm.*
**** *May not fit some 350 kcmil compact 100% (175 mil) insulated power cables. Check minimum insulation diameter to confirm.*
***** *May not fit some 500 kcmil compact insulated power cables. Check minimum insulation diameter to confirm.*

TABLE 2a – AEIC/ICEA CABLE SPECIFICATIONS

Calculated Dimensions – Stranded Conductor

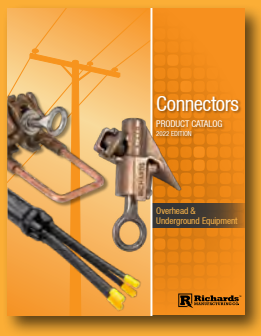
Aluminum and Copper Conductors			15kV Cable (100% level - 0.175" Wall) Insulation Diameter - Inches				15kV Cable (133% level - 0.220" Wall) Insulation Diameter - Inches				25kV Cable (100% level - 0.260" Wall) Insulation Diameter - Inches				35kV Cable (100% level - 0.345" Wall) Insulation Diameter - Inches			
SIZE AWG/kcmil	No. of Strands	Inches	AEIC CS8-07		ICEA S-97-682		AEIC CS8-07		ICEA S-97-682		AEIC CS8-07		ICEA S-97-682		AEIC CS8-07		ICEA S-97-682	
			MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
#4	7	0.232	0.585	0.675	0.585	0.670	0.675	0.765	0.675	0.765	0.745	0.845	0.745	0.835	0.915	1.015	0.915	1.015
#3	7	0.260	0.615	0.700	0.615	0.695	0.705	0.790	0.705	0.790	0.775	0.870	0.775	0.865	0.945	1.040	0.945	1.045
#2 Solid	1	0.258	0.610	0.700	0.610	0.695	0.700	0.790	0.700	0.790	0.770	0.870	0.770	0.860	0.940	1.040	0.940	1.040
#2	7	0.292	0.645	0.735	0.645	0.730	0.735	0.825	0.735	0.825	0.805	0.905	0.805	0.895	0.975	1.075	0.975	1.075
#1 Solid	1	0.289	0.645	0.730	0.645	0.725	0.735	0.820	0.735	0.820	0.805	0.900	0.805	0.895	0.975	1.070	0.975	1.070
#1	7	0.332	0.685	0.775	0.685	0.770	0.775	0.865	0.775	0.865	0.845	0.945	0.845	0.935	1.015	1.115	1.015	1.115
1/0 Solid	1	0.325	0.680	0.765	0.680	0.760	0.770	0.855	0.770	0.855	0.840	0.935	0.840	0.930	1.010	1.105	1.010	1.110
1/0 AWG	19	0.373	0.725	0.815	0.725	0.810	0.815	0.905	0.815	0.905	0.885	0.985	0.885	0.980	1.055	1.155	1.055	1.155
2/0 AWG	19	0.418	0.775	0.860	0.775	0.855	0.865	0.950	0.865	0.950	0.935	1.030	0.935	1.025	1.105	1.200	1.105	1.200
3/0 AWG	19	0.470	0.825	0.915	0.825	0.905	0.915	1.005	0.915	1.000	0.985	1.085	0.985	1.075	1.155	1.255	1.155	1.255
4/0 AWG	19	0.528	0.880	0.970	0.880	0.965	0.970	1.060	0.970	1.060	1.040	1.140	1.040	1.135	1.210	1.310	1.210	1.310
250 kcmil	37	0.575	0.935	1.030	0.935	1.020	1.025	1.120	1.025	1.115	1.095	1.210	1.095	1.190	1.265	1.385	1.265	1.370
300 kcmil	37	0.630	0.990	1.085	0.990	1.075	1.080	1.175	1.080	1.170	1.150	1.265	1.150	1.245	1.320	1.440	1.320	1.425
350 kcmil	37	0.681	1.045	1.135	1.045	1.130	1.135	1.225	1.135	1.220	1.205	1.315	1.205	1.295	1.375	1.490	1.375	1.475
400 kcmil	37	0.728	1.090	1.185	1.090	1.175	1.180	1.275	1.180	1.270	1.250	1.365	1.250	1.345	1.420	1.540	1.420	1.520
450 kcmil	37	0.772	1.135	1.230	1.135	1.220	1.225	1.320	1.225	1.315	1.295	1.410	1.295	1.385	1.465	1.585	1.465	1.565
500 kcmil	37	0.813	1.175	1.270	1.175	1.260	1.265	1.360	1.265	1.355	1.335	1.450	1.335	1.430	1.505	1.625	1.505	1.605
550 kcmil	61	0.855	1.215	1.315	1.215	1.300	1.305	1.405	1.305	1.395	1.375	1.495	1.375	1.470	1.545	1.670	1.545	1.650
600 kcmil	61	0.893	1.265	1.360	1.265	1.350	1.355	1.450	1.355	1.445	1.425	1.540	1.425	1.520	1.595	1.715	1.595	1.695
650 kcmil	61	0.929	1.300	1.400	1.300	1.385	1.390	1.490	1.390	1.480	1.460	1.580	1.460	1.555	1.630	1.755	1.630	1.730
700 kcmil	61	0.964	1.335	1.435	1.335	1.420	1.425	1.525	1.425	1.515	1.495	1.615	1.495	1.590	1.665	1.790	1.665	1.765
750 kcmil	61	0.998	1.370	1.470	1.370	1.455	1.460	1.560	1.460	1.550	1.530	1.650	1.530	1.625	1.700	1.825	1.700	1.800
800 kcmil	61	1.031	1.400	1.500	1.400	1.490	1.490	1.590	1.490	1.580	1.560	1.680	1.560	1.655	1.730	1.855	1.730	1.835
900 kcmil	61	1.094	1.465	1.565	1.465	1.550	1.555	1.655	1.555	1.645	1.625	1.745	1.625	1.720	1.795	1.920	1.795	1.895
1000 kcmil	61	1.152	1.520	1.625	1.520	1.610	1.610	1.715	1.610	1.705	1.680	1.805	1.680	1.775	1.850	1.980	1.850	1.955
1250 kcmil	91	1.289	1.755	1.880	1.755	1.870	1.755	1.880	1.755	1.870	1.825	1.970	1.825	1.945	1.995	2.145	1.995	2.120
1500 kcmil	91	1.412	1.880	2.005	1.880	1.995	1.880	2.005	1.880	1.995	1.950	2.095	1.950	2.065	2.120	2.270	2.120	2.245

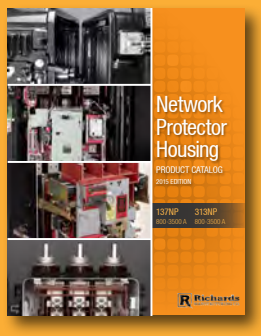
Aluminum and Copper Conductors			15kV Cable (100% level - 0.175" Wall) Insulation Diameter - Inches				15kV Cable (133% level - 0.220" Wall) Insulation Diameter - Inches				25kV Cable (100% level - 0.260" Wall) Insulation Diameter - Inches				35kV Cable (100% level - 0.345" Wall) Insulation Diameter - Inches			
SIZE AWG/kcmil	No. of Strands	Inches	AEIC CS8-07		ICEA S-97-682		AEIC CS8-07		ICEA S-97-682		AEIC CS8-07		ICEA S-97-682		AEIC CS8-07		ICEA S-97-682	
			MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
#4	7	0.225	0.580	0.665	0.580	0.660	0.670	0.755	0.670	0.755	0.740	0.835	0.740	0.830	0.910	1.005	0.910	1.010
#3	7	0.252	0.605	0.695	0.605	0.690	0.695	0.785	0.695	0.785	0.765	0.865	0.765	0.855	0.935	1.035	0.935	1.035
#2	7	0.283	0.635	0.725	0.635	0.720	0.725	0.815	0.725	0.815	0.795	0.895	0.795	0.890	0.965	1.065	0.965	1.065
#1	7	0.322	0.675	0.765	0.675	0.760	0.765	0.855	0.765	0.855	0.835	0.935	0.835	0.925	1.005	1.105	1.005	1.105
1/0 AWG	19	0.362	0.715	0.805	0.715	0.800	0.805	0.895	0.805	0.895	0.875	0.975	0.875	0.965	1.045	1.145	1.045	1.145
2/0 AWG	19	0.406	0.760	0.850	0.760	0.845	0.850	0.940	0.850	0.935	0.920	1.020	0.920	1.010	1.090	1.190	1.090	1.190
3/0 AWG	19	0.456	0.810	0.900	0.810	0.895	0.900	0.990	0.900	0.985	0.970	1.070	0.970	1.060	1.140	1.240	1.140	1.240
4/0 AWG	19	0.512	0.865	0.955	0.865	0.950	0.955	1.045	0.955	1.045	1.025	1.125	1.025	1.115	1.195	1.295	1.195	1.295
250 kcmil	37	0.558	0.920	1.015	0.920	1.005	1.010	1.105	1.010	1.100	1.080	1.195	1.080	1.175	1.250	1.370	1.250	1.350
300 kcmil	37	0.611	0.975	1.065	0.975	1.060	1.065	1.155	1.065	1.150	1.135	1.245	1.135	1.225	1.305	1.420	1.305	1.405
350 kcmil	37	0.661	1.025	1.115	1.025	1.110	1.115	1.205	1.115	1.200	1.185	1.295	1.185	1.275	1.355	1.470	1.355	1.455
400 kcmil	37	0.706	1.070	1.160	1.070	1.155	1.160	1.250	1.160	1.245	1.230	1.340	1.230	1.320	1.400	1.515	1.400	1.500
450 kcmil	37	0.749	1.110	1.205	1.110	1.195	1.200	1.295	1.200	1.290	1.270	1.385	1.270	1.365	1.440	1.560	1.440	1.540
500 kcmil	37	0.789	1.150	1.245	1.150	1.235	1.240	1.335	1.240	1.330	1.310	1.425	1.310	1.405	1.480	1.600	1.480	1.580
550 kcmil	61	0.829	1.190	1.285	1.190	1.275	1.280	1.375	1.280	1.370	1.350	1.465	1.350	1.445	1.520	1.640	1.520	1.620
600 kcmil	61	0.866	1.235	1.335	1.235	1.325	1.325	1.425	1.325	1.415	1.395	1.515	1.395	1.490	1.565	1.690	1.565	1.670
650 kcmil	61	0.901	1.270	1.370	1.270	1.360	1.360	1.460	1.360	1.450	1.430	1.550	1.430	1.525	1.600	1.725	1.600	1.705
700 kcmil	61	0.935	1.305	1.405	1.305	1.390	1.395	1.495	1.395	1.485	1.465	1.585	1.465	1.560	1.635	1.760	1.635	1.740
750 kcmil	61	0.968	1.340	1.440	1.340	1.425	1.430	1.530	1.430	1.520	1.500	1.620	1.500	1.595	1.670	1.795	1.670	1.770
800 kcmil	61	1.000	1.370	1.470	1.370	1.455	1.460	1.560	1.460	1.550	1.530	1.650	1.530	1.625	1.700	1.825	1.700	1.805
900 kcmil	61	1.061	1.430	1.530	1.430	1.520	1.520	1.620	1.520	1.610	1.590	1.710	1.590	1.685	1.760	1.885	1.760	1.865
1000 kcmil	61	1.117	1.485	1.590	1.485	1.575	1.575	1.680	1.575	1.670	1.645	1.770	1.645	1.740	1.815	1.945	1.815	1.920
1250 kcmil	91	1.251	1.720	1.845	1.720	1.830	1.720	1.845	1.720	1.830	1.790	1.935	1.790	1.905	1.960	2.110	1.960	2.085
1500 kcmil	91	1.370	1.840	1.965	1.840	1.950	1.840	1.965	1.840	1.950	1.910	2.055	1.910	2.025	2.080	2.230	2.080	2.205

TABLE 2c – AEIC/ICEA CABLE SPECIFICATIONS

Calculated Dimensions – Compact Conductor

Aluminum and Copper Conductors			15kV Cable (100% level - 0.175" Wall) Insulation Diameter - Inches				15kV Cable (133% level - 0.220" Wall) Insulation Diameter - Inches				25kV Cable (100% level - 0.260" Wall) Insulation Diameter - Inches				35kV Cable (100% level - 0.345" Wall) Insulation Diameter - Inches			
SIZE AWG/kcmil	No. of Strands	Inches	AEIC CS8-07		ICEA S-97-682		AEIC CS8-07		ICEA S-97-682		AEIC CS8-07		ICEA S-97-682		AEIC CS8-07		ICEA S-97-682	
			MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
#4	7	0.213	0.565	0.650	0.565	0.650	0.655	0.740	0.655	0.745	0.725	0.820	0.725	0.815	0.895	0.990	0.895	0.995
#3	7	0.238	0.590	0.675	0.590	0.675	0.680	0.765	0.680	0.770	0.750	0.845	0.750	0.845	0.920	1.015	0.920	1.020
#2	7	0.268	0.620	0.710	0.620	0.705	0.710	0.800	0.710	0.800	0.780	0.880	0.780	0.875	0.950	1.050	0.950	1.050
#1	7	0.299	0.655	0.740	0.655	0.735	0.745	0.830	0.745	0.830	0.815	0.910	0.815	0.905	0.985	1.080	0.985	1.080
1/0 AWG	19	0.336	0.690	0.775	0.690	0.775	0.780	0.865	0.780	0.865	0.850	0.945	0.850	0.940	1.020	1.115	1.020	1.120
2/0 AWG	19	0.376	0.730	0.815	0.730	0.815	0.820	0.905	0.820	0.905	0.890	0.985	0.890	0.980	1.060	1.155	1.060	1.160
3/0 AWG	19	0.423	0.775	0.865	0.775	0.860	0.865	0.955	0.865	0.955	0.935	1.035	0.935	1.030	1.105	1.205	1.105	1.205
4/0 AWG	19	0.475	0.830	0.915	0.830	0.910	0.920	1.005	0.920	1.005	0.990	1.085	0.990	1.080	1.160	1.255	1.160	1.260
250 kcmil	37	0.520	0.880	0.970	0.880	0.965	0.970	1.060	0.970	1.060	1.040	1.150	1.040	1.135	1.210	1.325	1.210	1.315
300 kcmil	37	0.570	0.930	1.020	0.930	1.015	1.020	1.110	1.020	1.110	1.090	1.200	1.090	1.185	1.260	1.375	1.260	1.365
350 kcmil	37	0.616	0.980	1.065	0.980	1.065	1.070	1.155	1.070	1.155	1.140	1.245	1.140	1.230	1.310	1.420	1.310	1.410
400 kcmil	37	0.659	1.020	1.110	1.020	1.105	1.110	1.200	1.110	1.200	1.180	1.290	1.180	1.275	1.350	1.465	1.350	1.450
450 kcmil	37	0.700	1.060	1.150	1.060	1.145	1.150	1.240	1.150	1.240	1.220	1.330	1.220	1.315	1.390	1.505	1.390	1.495
500 kcmil	37	0.736	1.100	1.185	1.100	1.185	1.190	1.275	1.190	1.275	1.260	1.365	1.260	1.350	1.430	1.540	1.430	1.530
550 kcmil	61	0.775	1.135	1.225	1.135	1.220	1.225	1.315	1.225	1.315	1.295	1.405	1.295	1.390	1.465	1.580	1.465	1.570
600 kcmil	61	0.813	1.185	1.275	1.185	1.270	1.275	1.365	1.275	1.365	1.345	1.455	1.345	1.440	1.515	1.630	1.515	1.615
650 kcmil	61	0.845	1.215	1.305	1.215	1.300	1.305	1.395	1.305	1.395	1.375	1.485	1.375	1.470	1.545	1.660	1.545	1.650
700 kcmil	61	0.877	1.245	1.340	1.245	1.335	1.335	1.430	1.335	1.430	1.405	1.520	1.405	1.500	1.575	1.695	1.575	1.680
750 kcmil	61	0.908	1.280	1.370	1.280	1.365	1.370	1.460	1.370	1.460	1.440	1.550	1.440	1.535	1.610	1.725	1.610	1.710
800 kcmil	61	0.938	1.310	1.400	1.310	1.395	1.400	1.490	1.400	1.490	1.470	1.580	1.470	1.565	1.640	1.755	1.640	1.740
900 kcmil	61	0.999	1.370	1.460	1.370	1.455	1.460	1.550	1.460	1.550	1.530	1.640	1.530	1.625	1.700	1.815	1.700	1.800
1000 kcmil	61	1.060	1.430	1.520	1.430	1.515	1.520	1.610	1.520	1.610	1.590	1.700	1.590	1.685	1.760	1.875	1.760	1.865
1250 kcmil	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1500 kcmil	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—





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