

# Loadbreak Apparatus Connectors

**COOPER** Power Systems

Electrical Apparatus

**200 A 15 kV Class  
Loadbreak Portable Feedthru**

**500-14**

## GENERAL

The Cooper Power Systems 200 A, 15 kV Class Loadbreak Portable Feedthru provides two internally bused 8.3/14.4 kV loadbreak interfaces meeting all requirements of **IEEE Standard 386™** – Separable Insulated Connector Systems. It is used in pad-mounted equipment, underground vaults, and other apparatus to bypass transformers, to test and ground circuits, and to provide open point deadfront lightning arrester protection when used with the Cooper Power Systems M.O.V.E.™ Arrester. Sectionalizing of cable runs, to find and isolate cable faults, is made easy when the portable feedthru is used with 15 kV Class (8.3/14.4 kV) loadbreak elbows and other accessories meeting the requirements of **IEEE Standard 386™**. When mated with comparably rated products, the portable feedthru provides a fully shielded, submersible, separable connection for loadbreak operation.

The portable feedthru has a continuous solid current path of all copper alloy from finger contact to finger contact. No aluminum current carrying components are used. It also has an ablative arc interrupter with excellent de-ionizing properties. The body is molded of high quality peroxide cured EPDM insulation and has a molded on peroxide-cured semi-conductive EPDM shield.

Cooper's latch indicator ring, located on the circumference of the bushing's collar, eliminates the guesswork of loadbreak elbow installation on the bushing interface. The bright yellow ring provides immediate feedback to determine if the elbow is properly installed on the bushing. If the yellow ring is completely covered by the loadbreak elbow, the elbow is fully "latched." If the ring is visible, the elbow is not fully installed, so the operator can correct it before any problems occur.

The portable feedthru is designed to be installed in the parking stand mounted on a transformer or other apparatus. It is available with horizontal, vertical or



**Figure 1.**  
**Horizontal Loadbreak Portable Feedthru; also available in vertical and universal configurations.**

universal mountings. The vertical is recommended for applications where inadequate spacing is provided between bushings. In all types, the feedthru is secured in a stainless steel bracket with a stainless steel holddown bolt equipped with a brass pressure foot. The drain wire lug on the bracket allows attachment of a drain wire to ensure deadfront construction.

## INSTALLATION

No special tools are required. A hotstick tool is used to place the portable feedthru in the parking stand on the apparatus front plate. Refer to Installation Instruction Sheet S500-14-1 for details.

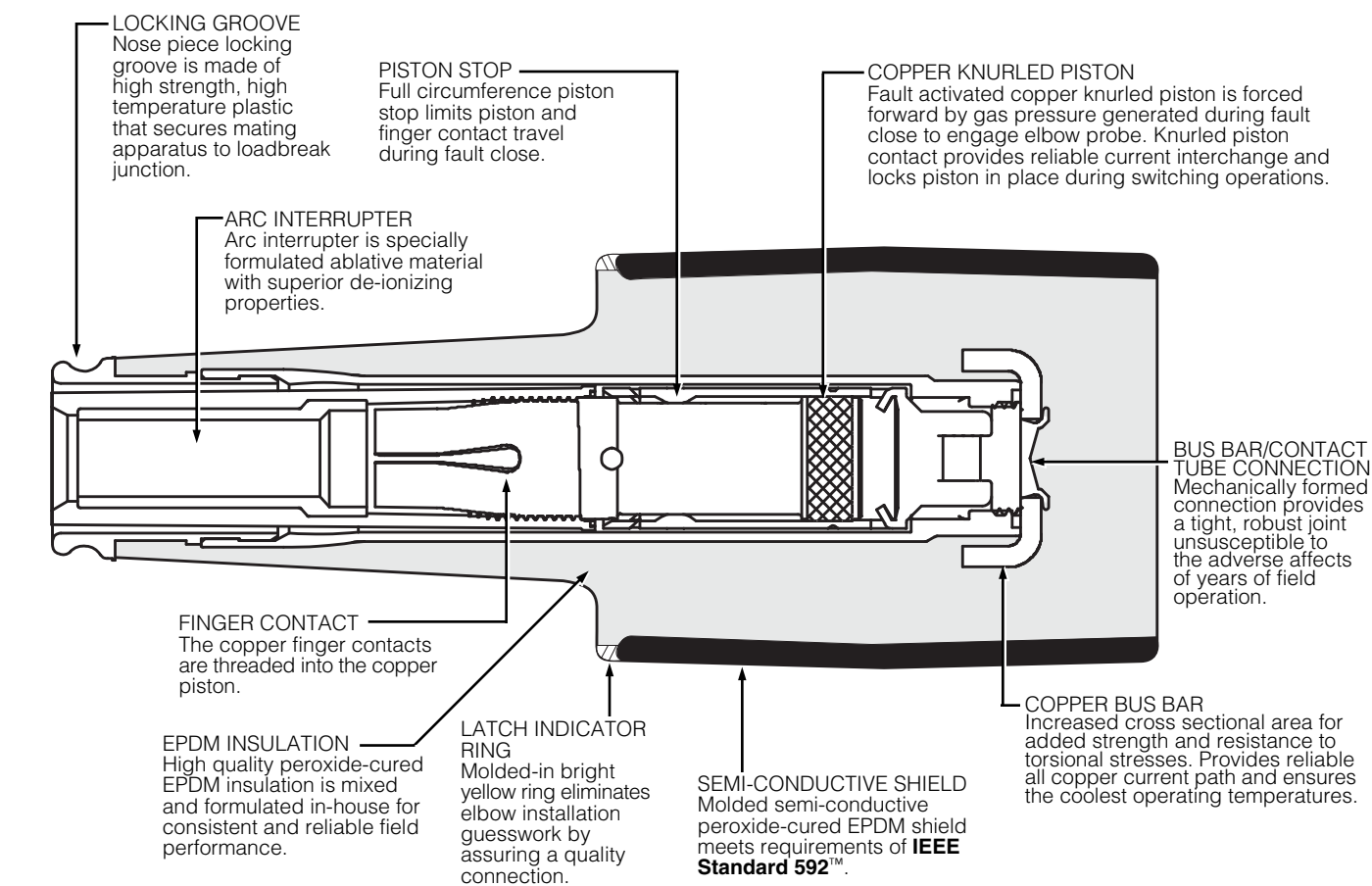
## PRODUCTION TESTS

Tests conducted in accordance with **IEEE Standard 386™**:

- AC 60 Hz 1 Minute Withstand – 34 kV
- Minimum Corona Voltage Level – 11 kV

Tests conducted in accordance with Cooper Power Systems requirements:

- Physical Inspection
- Periodic Dissection
- Periodic X-ray Analysis



**Figure 2.** Illustration shows cutaway of loadbreak junction with continuous current path of all copper alloy. Field proven, all copper alloy current path ensures the coolest operating temperatures and reliable current flow.

**TABLE 1**  
Voltage Ratings and Characteristics

Description	kV
Standard Voltage Class	15
Maximum Rating Phase-to-Phase	14.4
Maximum Rating Phase-to-Ground	8.3
AC 60 Hz 1 Minute Withstand	34
DC 15 Minute Withstand	53
BIL and Full Wave Crest	95
Minimum Corona Voltage Level	11

Voltage ratings and characteristics are in accordance with IEEE Standard 386™.

**TABLE 2**  
Current Ratings and Characteristics

Description	Amperes
Continuous	200 A rms
Switching	10 operations at 200 A rms at 14.4 kV
Fault Closure	10,000 A rms symmetrical at 14.4 kV for 0.17 s after 10 switching operations
Short Time	10,000 A rms symmetrical for 0.17 s 3,500 A rms symmetrical for 3.0 s

Current ratings and characteristics are in accordance with IEEE Standard 386™.

**ORDERING INFORMATION**

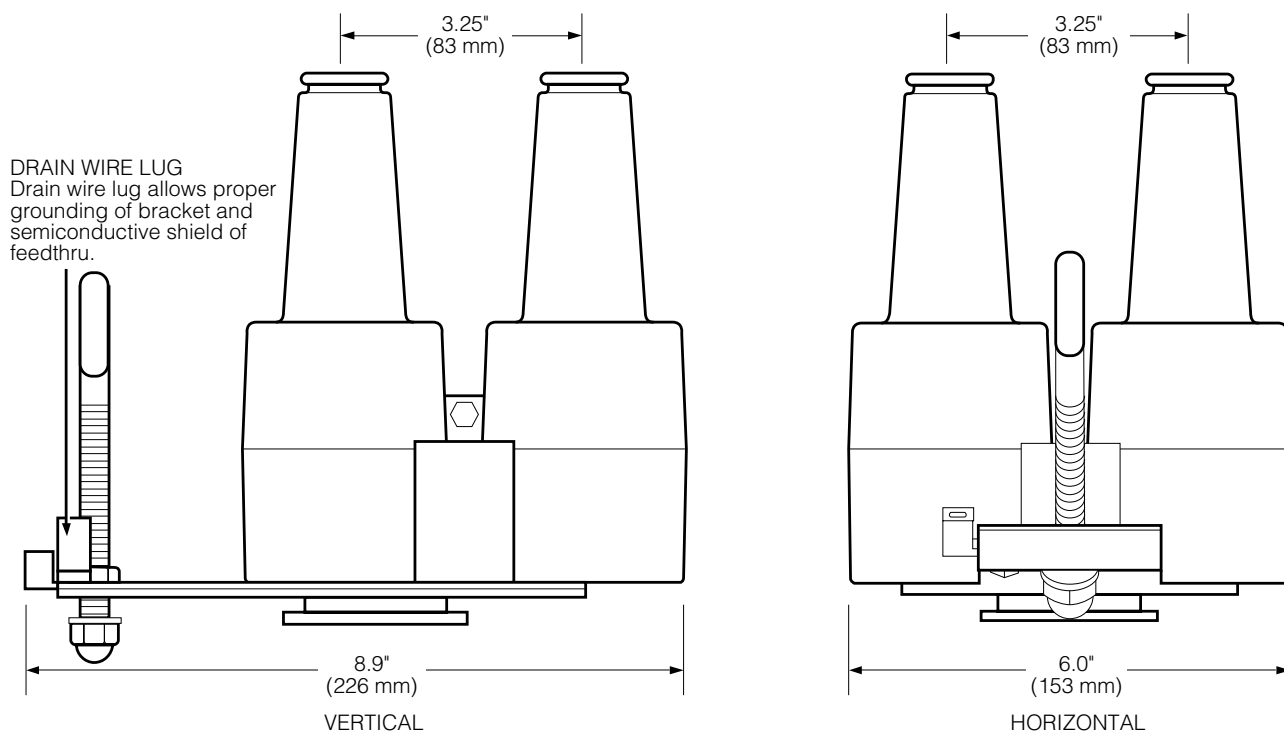
To order the 15 kV Class Portable Feedthru Kits, refer to Table 3.

**TABLE 3**  
Portable Feedthrus

Description	Catalog Number
Horizontal Feedthru	LPF215H
Vertical Feedthru	LPF215V
Universal Feedthru	LPF215U

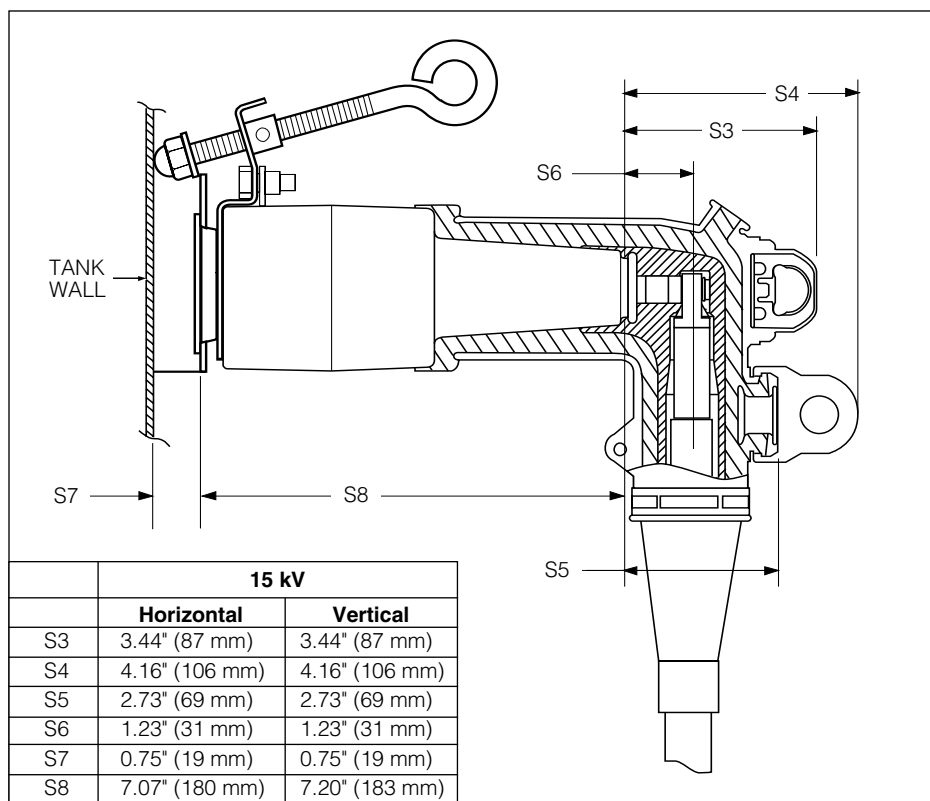
Each kit contains:

- Portable Feedthru with Bracket
- Shipping Caps (2637123B01) (not for energized operation)
- Silicone Lubricant
- Installation Instruction Sheet

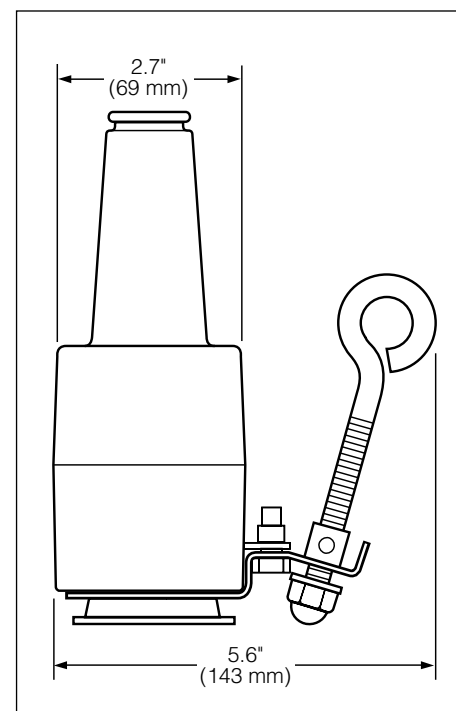


**Figure 3.**  
**Vertical and Horizontal Feedthru dimensions.**

Note: Dimensions given are for reference only.



**Figure 4.**  
**Loadbreak Portable Feedthru stacking dimensions.**



**Figure 5.**  
**Side view of Portable Feedthru with mounting bracket, drain wire lug and eyebolt.**

Note: Dimensions given are for reference only.

