

## Splices, Automatic Overhead Copper



### 1. Scope

This standard covers the requirements for automatic overhead copper straight and reducing splices.

This standard applies to the following Seattle City Light (SCL) stock numbers:

#### Automatic Overhead Copper Splices, Straight

Stock No.	Conductor Size (AWG/kcmil)	
	Solid	Stranded
677532	6	8
677533	4	6
677535	2	3
677536	1	2
677537	1/0	1
677538	2/0	1/0
677539	3/0	2/0
677540	4/0	3/0
677541	–	4/0
677544	–	300
677545	–	350

#### Automatic Overhead Copper Splices, Reducing

Stock No.	Large End		Small End	
	Conductor Size (AWG)		Conductor Size (AWG)	
	Solid	Stranded	Solid	Stranded
677556	4	6	6	8
677577	3/0	2/0	2/0	1/0
677581	–	4/0	4/0	3/0

## 2. Application

Automatic splices are used for splicing overhead wire. Splices may be used to splice copper and copperweld conductor.

Automatic splices require tension to form an adequate electrical connection.

---

## 3. Industry Standards

Splices shall meet the applicable requirements of the following industry standards:

**ASTM-B258**; Standard Specification for Standard Nominal Diameters and Cross-Sectional Areas of AWG Sizes of Solid Round Wires Used as Electrical Conductors

**ASTM-B8**; Standard Specification for Concentric-Lay Copper Conductors, Hard, Medium-Hard, or Soft

---

## 4. Requirements

### 4.1 General

Splices shall contain a center barrier to provide a positive indication of full conductor insertion.

Splices shall contain inhibitor for optimum long-term performance.

Splice strength and dimensions shall be according to tables 4.1a and 4.1b.

Splice shells shall be drawn copper tube.

Splice jaws shall be bronze alloy.

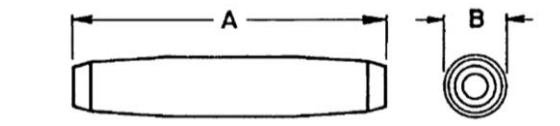
**Table 4.1a. Automatic Splice Strength**

Conductor	% Rated Breaking Strength (RBS) of Conductor
Solid	90
Stranded	80
Copperweld	75

**Table 4.1b. Dimensions, Minimum Nominal**

Stock Number	A (in)	B (in)
677532	3.4	0.50
677533	3.5	0.50
677535	4.4	0.56
677536	4.4	0.56
677537	4.4	0.56
677538	5.5	0.75
677539	5.5	0.75
677540	6.8	1.2
677541	6.8	1.2
677544	8.6	1.5
677545	8.6	1.5
677556	4	0.56
677577	5.8	0.75
677581	7.4	1.3

**Figure 4.1. Automatic Splice**



## 5. Marking

Each automatic splice shall be marked with:

- Company name or logo
- Part identification number
- Date of manufacture (month and year)
- Country of origin
- Strand size and wire size ranges

## 6. Packaging

Automatic splices shall be shipped assembled and individually bagged.

Each standard package shall be legibly marked with the following information:

- Manufacturer identification
- Product description
- Seattle City Light stock number
- Quantity contained

Each shipping container shall be legibly marked with the following information:

- Manufacturer identification
- Country of origin
- Product description
- Seattle City Light purchase order number

## 7. Issuance

Stock Unit: EA

## 8. Approved Manufacturers

### Automatic Overhead Copper Splices, Straight

Stock No.	Conductor Size (AWG/kcmil)		Hubbell Power Systems	MacLean Power Systems
	Solid	Stranded		
677532	6	8	GL111	61
677533	4	6	GL112	41
677535	2	3	GL114	21
677536	1	2	GL115	27
677537	1/0	1	GL116	101
677538	2/0	1/0	GL117	107
677539	3/0	2/0	GL118	207
677540	4/0	3/0	GL119	307
677541	–	4/0	GL120	407
677544	–	300	GL123	–
677545	–	350	GL125	–

### Automatic Overhead Copper Splices, Reducing

Stock No.	Large End		Small End		Hubbell Power Systems	MacLean Power Systems
	Conductor Size (AWG)		Conductor Size (AWG)			
	Solid	Stranded	Solid	Stranded		
677556	4	6	6	8	GL150	–
677577	3/0	2/0	2/0	1/0	–	207107
677581	–	4/0	4/0	3/0	GL175	–

## 9. Sources

**Tilley, Kathy**; SCL Electrical Engineering support specialist and originator of 6775.40  
 (kathy.tilley@seattle.gov)

**SCL Material Standard 6775.4** (canceled); “Splice, Automatic Line, Copper”

[www.hubbellpowersystems.com](http://www.hubbellpowersystems.com)

[www.maclepower.com](http://www.maclepower.com)