

Hand-Crimping Tools, PIDG Terminals and Splices



1. Scope

This standard covers the requirements for hand-crimping tools for pre-insulated diamond grip (PIDG) terminals and splices.

This standard applies to Seattle City Light (SCL) Stock No. 015010.

2. Application

Hand-crimping tools are used for all internal control wire terminations in SCL substations as required by SCL Wiring Specification D-44327 (see Appendix).

Hand-crimping tools are designed to crimp red (22-18), blue (16-14), and yellow (12-10) AMP/TE PIDG ring-tongue terminals described in SCL 6771.30.

3. Requirements

Hand-crimping tools shall meet the following requirements:

- Crimp form/wire barrel type: closed barrel, Tetra
- Ratchet configuration: operator releasable and adjustable
- Die set type: fixed in tool
- Color coded crimp nest on face of tool
- Dimensions, nominal: 10.25 in x 3.5 in x 1.0
- Weight, nominal: 1.4 lb
- UL approved

Standard Coordinator
Muneer Shetab

Standards Engineering Supervisor
Brett Hanson

Division Director
Bob Risch

Muneer Shetab

Brett Hanson

Bob Risch

4. Packaging

Product shall be packaged to prevent damage during shipping, handling, and storage. Individual packages shall be legibly marked with:

- Manufacturer name
- Manufacturer catalog number
- Product description
- Seattle City Light stock number

Shipping containers shall be legibly marked with:

- Manufacturer name
 - Seattle City Light purchase order number
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5. Issuance

Stock unit: EA

6. Approved Manufacturers

Description	Manufacturer / Part No.
Tetra-Crimp Hand Crimping Tool	TE Connectivity, Inc., 59824-1

7. Sources

Shetab, Muneer; SCL Standards Engineer and Originator of 7637.15

TE Connectivity, PIDG Terminals & Splices Quick Reference Guide, Reference No. 1-177394-5, May 2022

8. References

SCL Drawing D-44327, SCL Wiring Method Specification

SCL Material Standard 6771.30; "Terminals and Splices, Insulated Solderless Type"

Appendix. SCL Drawing D-44327, Wiring Method Specification

CONTROL & INSTRUMENT CABLE GROUNDING

UNSHIELDED CONTROL CABLE

CONTROL CABLE
 EQUIPMENT CABINET
 1. AND 2. WIRE RETIE TO CONTROL CABLE AND EQUIPMENT CABINET

SHIELDED CONTROL CABLE

CONTROL CABLE
 EQUIPMENT CABINET
 1. AND 2. WIRE RETIE TO CONTROL CABLE AND EQUIPMENT CABINET

INSTRUMENT CABLE

INSTRUMENT CABLE
 EQUIPMENT CABINET
 1. AND 2. WIRE RETIE TO INSTRUMENT CABLE AND EQUIPMENT CABINET

VOLTAGE TRANSFORMER CIRCUITS

THE 115 VOLTAGE TRANSFORMER CIRCUITS SHALL BE IDENTIFIED FOR THE FOLLOWING PURPOSES:

CONDUCTOR SIZE AND COLOR SHALL BE IDENTIFIED BY THE COLOR OF THE CONDUCTORS.

CONDUCTOR IDENTIFICATION SHALL BE AS FOLLOWS:

1. PRIMARY
 2. SECONDARY

CURRENT TRANSFORMER CIRCUITS

THE 5 AMPERE CURRENT TRANSFORMER CIRCUITS SHALL BE IDENTIFIED BY THE COLOR OF THE CONDUCTORS.

CONDUCTOR IDENTIFICATION SHALL BE AS FOLLOWS:

1. PRIMARY
 2. SECONDARY

MULTI-CONDUCTOR CABLE CONDUCTOR SIZE

THE CONDUCTOR SIZE SHALL BE IDENTIFIED BY THE COLOR OF THE CONDUCTORS.

CONDUCTOR IDENTIFICATION SHALL BE AS FOLLOWS:

1. PRIMARY
 2. SECONDARY

SWITCHBOARD CONDUCTOR SIZE

THE CONDUCTOR SIZE SHALL BE IDENTIFIED BY THE COLOR OF THE CONDUCTORS.

CONDUCTOR IDENTIFICATION SHALL BE AS FOLLOWS:

1. PRIMARY
 2. SECONDARY

CONDUCTOR TERMINATIONS

THE CONDUCTORS SHALL BE IDENTIFIED BY THE COLOR OF THE CONDUCTORS.

CONDUCTOR IDENTIFICATION SHALL BE AS FOLLOWS:

1. PRIMARY
 2. SECONDARY

125VDC BRANCH CIRCUIT ALLOCATIONS

THE 125 VOLTAGE TRANSFORMER CIRCUITS SHALL BE IDENTIFIED BY THE COLOR OF THE CONDUCTORS.

CONDUCTOR IDENTIFICATION SHALL BE AS FOLLOWS:

1. PRIMARY
 2. SECONDARY

HIGH-DENSITY TERMINAL BLOCK (PHOENIX) COLOR CODE

THE HIGH-DENSITY TERMINAL BLOCKS SHALL BE IDENTIFIED BY THE COLOR OF THE TERMINALS.

CONDUCTOR IDENTIFICATION SHALL BE AS FOLLOWS:

1. PRIMARY
 2. SECONDARY

RELAY INPUT/OUTPUT APPLICATIONS

THE RELAY INPUT/OUTPUT APPLICATIONS SHALL BE IDENTIFIED BY THE COLOR OF THE TERMINALS.

CONDUCTOR IDENTIFICATION SHALL BE AS FOLLOWS:

1. PRIMARY
 2. SECONDARY

HIGH-DENSITY TERMINAL BLOCK (PHOENIX) IDENTIFICATION

THE HIGH-DENSITY TERMINAL BLOCKS SHALL BE IDENTIFIED BY THE COLOR OF THE TERMINALS.

CONDUCTOR IDENTIFICATION SHALL BE AS FOLLOWS:

1. PRIMARY
 2. SECONDARY

SWITCH NUMBERING

THE SWITCHES SHALL BE IDENTIFIED BY THE NUMBERING SYSTEM.

CONDUCTOR IDENTIFICATION SHALL BE AS FOLLOWS:

1. PRIMARY
 2. SECONDARY

FT TYPE TEST SWITCH APPLICATIONS

THE FT TYPE TEST SWITCHES SHALL BE IDENTIFIED BY THE COLOR OF THE TERMINALS.

CONDUCTOR IDENTIFICATION SHALL BE AS FOLLOWS:

1. PRIMARY
 2. SECONDARY

VOLTAGE/CURRENT TEST SWITCH

THE VOLTAGE/CURRENT TEST SWITCHES SHALL BE IDENTIFIED BY THE COLOR OF THE TERMINALS.

CONDUCTOR IDENTIFICATION SHALL BE AS FOLLOWS:

1. PRIMARY
 2. SECONDARY

RELAY INPUT TEST SWITCH

THE RELAY INPUT TEST SWITCHES SHALL BE IDENTIFIED BY THE COLOR OF THE TERMINALS.

CONDUCTOR IDENTIFICATION SHALL BE AS FOLLOWS:

1. PRIMARY
 2. SECONDARY

RELAY OUTPUT TEST SWITCHES

THE RELAY OUTPUT TEST SWITCHES SHALL BE IDENTIFIED BY THE COLOR OF THE TERMINALS.

CONDUCTOR IDENTIFICATION SHALL BE AS FOLLOWS:

1. PRIMARY
 2. SECONDARY

FT TEST SWITCH TERMINAL IDENTIFICATION

THE FT TEST SWITCHES SHALL BE IDENTIFIED BY THE COLOR OF THE TERMINALS.

CONDUCTOR IDENTIFICATION SHALL BE AS FOLLOWS:

1. PRIMARY
 2. SECONDARY

METER TEST SWITCH

THE METER TEST SWITCHES SHALL BE IDENTIFIED BY THE COLOR OF THE TERMINALS.

CONDUCTOR IDENTIFICATION SHALL BE AS FOLLOWS:

1. PRIMARY
 2. SECONDARY

RELAY TEST SWITCH

THE RELAY TEST SWITCHES SHALL BE IDENTIFIED BY THE COLOR OF THE TERMINALS.

CONDUCTOR IDENTIFICATION SHALL BE AS FOLLOWS:

1. PRIMARY
 2. SECONDARY

		ENDORSEMENTS DATE: BY: TITLE: SIGNATURE: APPROVED FOR SEATTLE CITY LIGHT: DATE: BY: TITLE:	STANDARDS GENERAL SYSTEM WIDE WIRING METHOD SPECIFICATION NONE	REV: 1 E D-44327 NONE
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