SEL Easily Extractable Meter Installation Guide

Introduction

The Easily Extractable Meter (EXM) option allows rapid removal while safely shorting connected CTs. This safe, economical, and flexible option easily retrofits legacy drawout meters using a simple retrofit bezel. These instructions describe how to install and use the EXM option.

Equipment Needed

➤ 3/8-inch Nut Driver

➤ 1/4-inch Drill Bit

➤ #2 Phillips® Screwdriver

New Installation

The standard SEL meter and EXM cutouts are identical. The sole difference is the addition of four 1/4-inch holes when mounting the EXM option.

Step 1. Make a 7.36-inch x 5.47-inch cutout in the mounting panel and drill four 1/4-inch holes as shown in *Figure 1*.
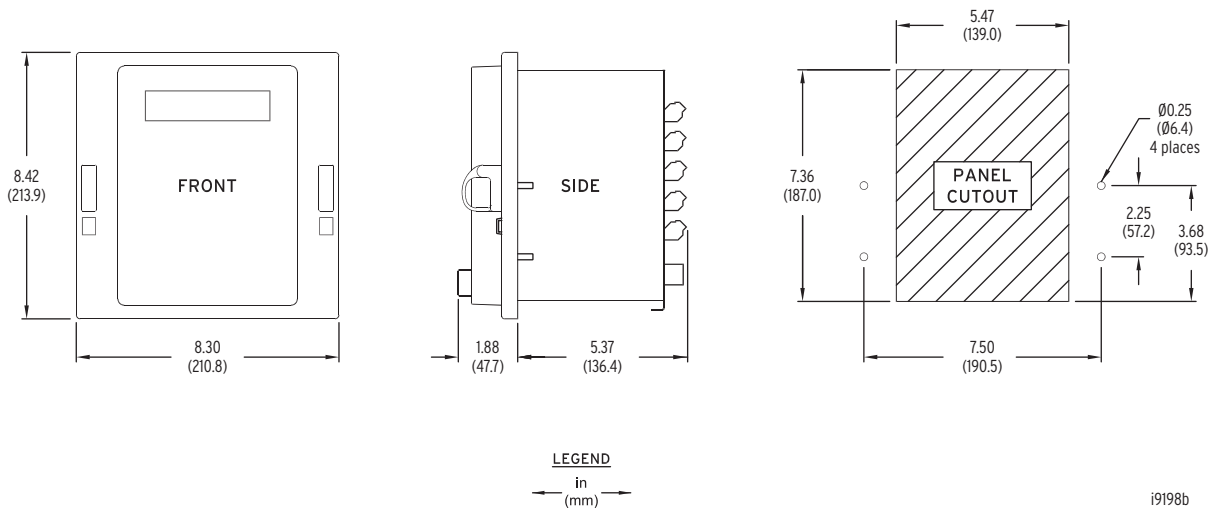

Figure 1 EXM Cutout Template

Step 2.   Install the supplied EXM mounting brackets on both sides of the panel cutout as shown in *Figure 2*. Tighten the supplied nuts by hand to ensure a small amount of play in the EXM mounting brackets.


Figure 2   EXM Mounting Brackets

Step 3.   Install the SEL meter with EXM bezel into the panel cutout. Ensure that both release latches snap into place.

Figure 3   EXM Bezel Snapped Onto Brackets

Step 4.   With a 3/8-inch nut driver, tighten the EXM mounting bracket nuts to 18 in-lbs.

Step 5.   The field wiring harness supplied with the EXM kit includes a wire clamp that provides strain relief on the harness. Install the wire clamp adjacent to the EXM with an approximate 16" service loop behind the EXM. This loop ensures that the connectors are readily accessible when the meter is removed from the panel.
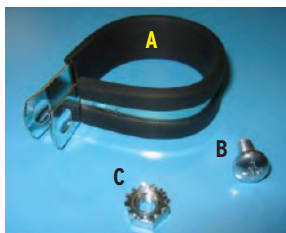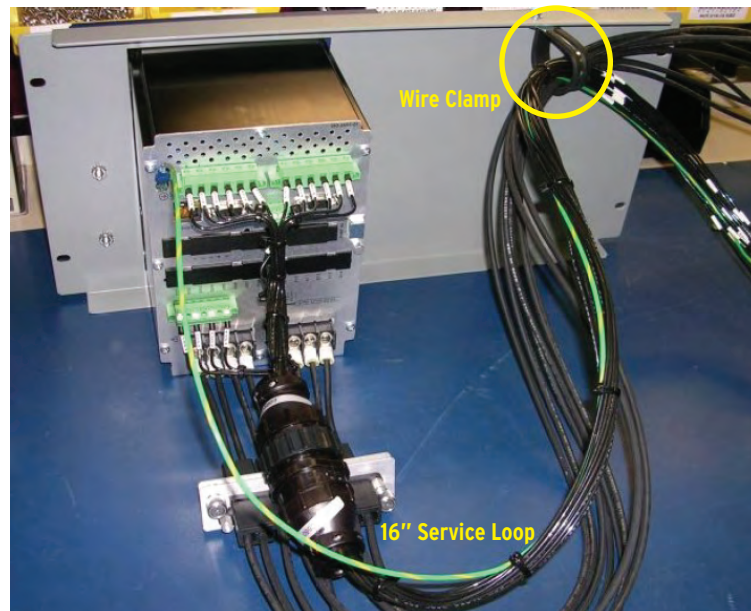

Wire Clamp Kit

Figure 4   Install the Supplied Wire Clamp to Create a Service Loop for Easy Extraction

Step 6. To remove the EXM from service, simply pull on the two release latches and allow the meter to rotate down as shown in *Figure 5*. The meter will hang on the rear-panel hook to facilitate access to the rear-panel connectors. Unscrew and separate the quick twist-off and self-shorting CT connectors and lift the meter out of the panel.
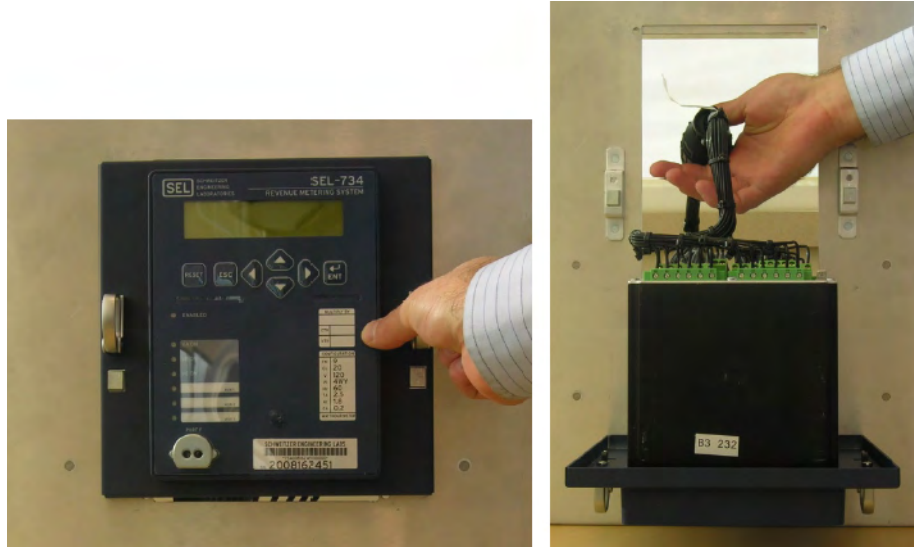

Figure 5   EXM Removal

Step 7. To reinstall the EXM, hang the rear panel of the meter on the panel cutout and mate the two connectors. Align the white stripes (shown in *Figure 6*) on the quick twist-off connector until you feel a light snap before locking the connector in place.

Figure 6   Alignment Marks on Quick Twist-Off Connector

Retrofit Installation

The EXM retrofits most existing switchboard and drawout cutouts with an 8.42-inch x 8.30-inch bezel cutout. If retrofitting into a panel with a cutout taller than this bezel, please contact SEL for a custom EXM bezel that covers larger cutouts.

Drill four 1/4-inch holes as marked in *Figure 1* and follow the *New Installation* instructions *Step 2–Step 6*.

EXM Cable Harness Details

The EXM option ships with two wiring harnesses. The wiring harness with the quick twist-off connector includes all power supply, I/O, and voltage connections. The second wiring harness features shelf-shorting capabilities that automatically short external CT connections when separated. Both connectors are insulated to prevent contact to live terminals. To ease installation, each wire includes a label to match the rear-panel and top label connection diagrams on the SEL meter.
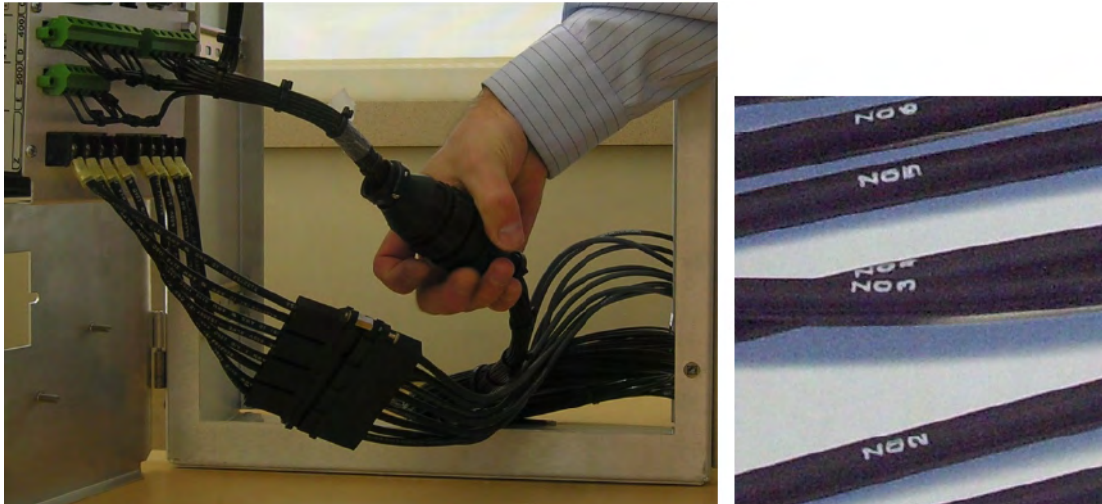
Figure 7   Individually Labeled Quick Twist-Off and Self-Shorting CT Connectors

Factory Assistance

We appreciate your interest in SEL products and services. If you have questions or comments, please contact us at:

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