

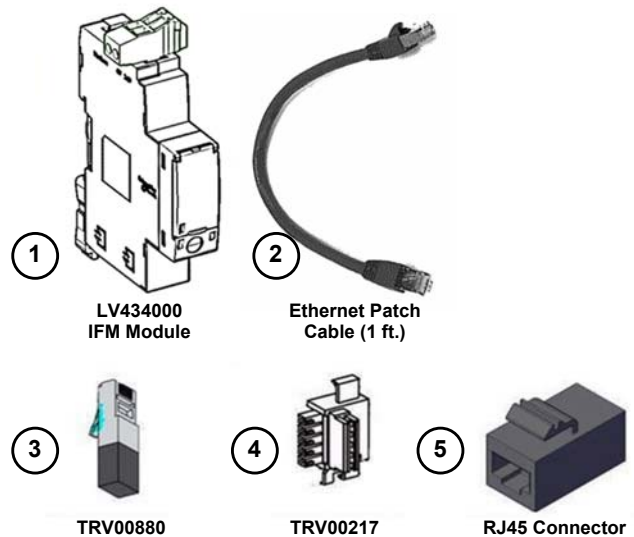
## IFM Installation in I-Line™ Smart Cell

### Class 2110

Retain for future use.

**Table 1: Kit Contents**

ID	Component ID	Description
1	LV434000	IFM Module
2	TRD855STR-1	Ethernet Patch Cable
3	TRV00880	ULP Line Terminator
4	TRV00217	Stacking Accessory
5	2111122-1	Internal Coupler (Cat5) for Connector Plate



**Table 2: Applicable I-Line Smart Cell Catalog Numbers**

Catalog Number <sup>1</sup>	Voltage (Vac)	Features
ICW(X)2222E1M1	120–240	IFE Modbus serial to TCP Gateway with basic web page
ICW(X)2422E1M1	240–480	IFE Modbus serial to TCP Gateway with basic web page
ICW(X)2632E1M1	480–600	IFE Modbus serial to TCP Gateway with basic web page
ICW(X)2222M01	120–240	IFM, Modbus serial communications
ICW(X)2422M01	240–480	IFM, Modbus serial communications
ICW(X)2632M01	480–600	IFM, Modbus serial communications
ICW(X)2222ERM2	120–240	Energy Reduction Maintenance Switch, Modbus serial communications
ICW(X)2422ERM2	240–480	Energy Reduction Maintenance Switch, Modbus serial communications
ICW(X)2632ERM2	480–600	Energy Reduction Maintenance Switch, Modbus serial communications

<sup>1</sup> Catalog numbers are available in either Left [L] = Bottom Feed or Right [R] = Top Feed.

### Tools Required



## Introduction

The design on the I-Line Smart Cell Communication Units allow for the expansion of the available communication capacity. Both the IFE (Modbus™ Serial to TCP) and IFM (Modbus Serial) versions allow for the addition of IFMs for communicating to Micrologic Trip Units. The Micrologic Trip Units must be capable of communication and these can be in the PowerPact H-, J-, L-, P-, and/or R-frame circuit breakers.

This kit is to provide all components and instructions necessary for expanding the units provided in Table 2. Do not exceed 15 IFM modules connected to a single IFE.

## Precaution

### **⚠ DANGER**

#### **HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH**

- Apply appropriate personal protective equipment (PPE) and follow safe electrical work practices. See NFPA 70E, CSA Z462, or NOM-029-STPS.
- This equipment must only be installed and serviced by qualified electrical personnel.
- Turn off all power supplying this equipment before working on or inside equipment.
- Always use a properly rated voltage sensing device to confirm power is off.
- Replace all devices, doors and covers before turning on power to this equipment.

**Failure to follow these instructions will result in death or serious injury.**

### **NOTICE**

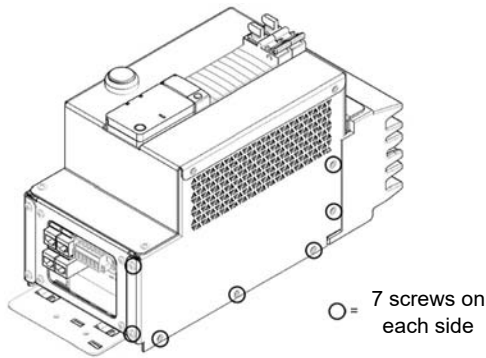
#### **HAZARD OF IMPROPER FUNCTIONALITY**

Read ULP system bulletin (catalog number TRV99101) before activating any ULP components.

**Failure to follow this instruction can result in equipment damage.**

## Expansion by Addition of IFMs

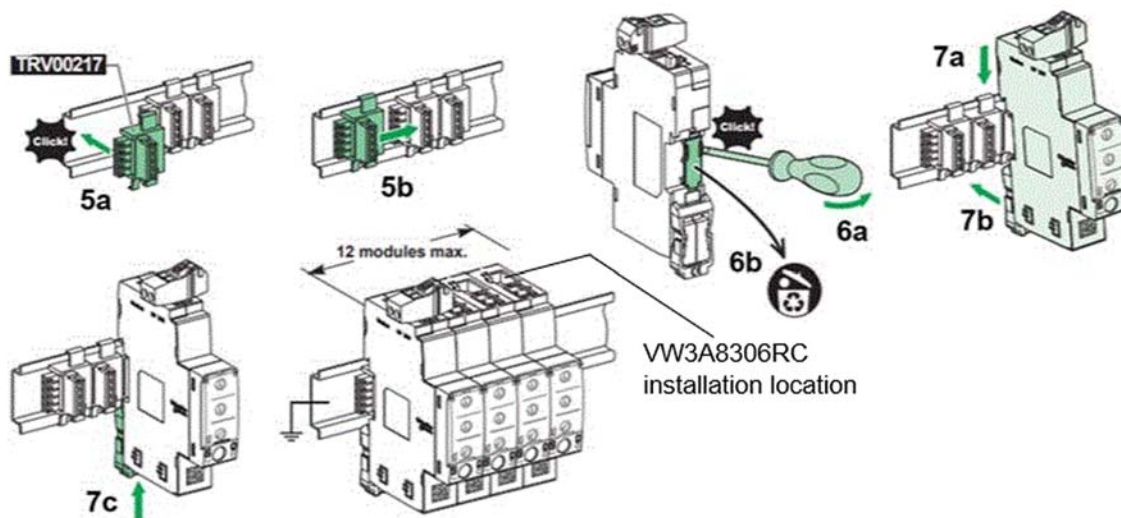
Figure 1: Cover Removal



1. Turn off all power supplying this equipment before working on or inside equipment. Remove I-Line Smart Cell from equipment prior to removing covers. Follow all Lockout/Tagout procedures.
  2. Remove top and side covers by removing the 14 screws, identified in Figure 1, using a #2 Phillips head screwdriver.
  3. Remove DIN mounted spacers (MG27062)—two spacers equals the same width of one IFM.
  4. Install stacking accessory (TRV00217) to DIN rail as shown in steps 4a and 4b of Figure 2.
  5. Remove cover from bottom of IFM unit, shown in step 5a and 5b of Figure 2.
  6. Place IFM onto installed stacking accessory and DIN rail, as shown in 6a, 6b, and 6c in Figure 2.
  7. Install Ethernet patch cable to IFM RJ45 port (refer to Figure 3).
  8. Install ULP Line terminator (TRV00880) in other RJ45 port (refer to Figure 3).
  9. Remove appropriate tab from accessory panel of Smart Cell.
- NOTE:** To remove tab, simply rotate the tab about the connecting material until it breaks loose. Discard removed tab.

10. Install in-line RJ45 coupler (Commscope #2111122-1) into the openings of the Accessory Plate by sliding the connector in the opening so that the stationary jaws of the connector fit on each side of the Accessory Plate first, then rotate the RJ45 Connector into the opening so that the "Flexible" jaws snap into place
11. Connect the other end of the Ethernet patch cable from step 9 to the RJ45 coupler in step 10.
12. Repeat steps 3 through 10, above, for multiple IFM installations.

Figure 2: IFM DIN Installation



13. After multiple IFMs have been added to the I-Line Smart Cell, the final IFM in the chain should have a Modbus terminator (VW3A8306RC) installed in the IFM (refer to Figure 2 for location). One terminator is supplied with every Smart Cell identified in table 2 within the information packet.

14. Install the necessary DIN mounted spacers (MG27062), that were removed in step 3, to make sure there are no gaps when the top cover is installed.
15. (Replace the Top Cover (which was removed in Step 1) and use the screws, secured in Step 1, to reconnect.
16. The Smart Cell should now be prepared with the correct number of IFMs and ready to install into an I-Line Panelboard or Switchboard.

**Figure 3: ULP Connections**

