

ISIMET

E – Series Enclosure

Installation, Maintenance, and Operation Instructions



The E Series Enclosures are pre-assembled and pre-wired enclosures intended for use with the *ISIMET* Utility Controller. Each contact point utilizes a master relay to control electrical outlets in the science classroom. The E-Series Enclosure utilizes a Square D mechanically held Lighting Contactor.

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ISIMET is a trademark of **ISIMET**, LLC.

Warranty:

ISIMET will repair or replace any defective parts or workmanship of this product for a period of one year from date of installation. The P.C. Board has a two year limited warranty. Damage caused by incorrect installation or improper usage is not warranted. Failure to follow recommended installation, operation, and/or maintenance procedures listed in this manual may void product warranty. Recovery rights shall be limited to the total sum of the amounts paid for the product by the purchaser.

EXTENDED WARRANTY:

ISIMET will extend the warranty of this product to a period of two years from date of installation when installation complies with all start up and routine maintenance procedures. Refer to Extended Warranty Policy.

Limits of Liability:

ISIMET's liability shall be limited to costs of repair or replacement parts. The Laboratory Service Panel and Utility Controller are not intended for usage other than those expressly described in this manual. **ISIMET** shall not be liable for damage or injury caused by the improper use of the product.

ISIMET does not warrant against or assume liability for failure of operation or lack of notification to secondary integrated monitoring systems. The system should be thoroughly tested and adjustments made at time of initial operation. Periodic testing should be conducted by the user to assure that all components function and operate according to specifications.

Care should be taken in the installation of this product. **ISIMET** shall not be liable for damage or injury caused from the improper installation of the product.

Warranty is Subject to Compliance with Specific Installation Requirements.

DISCLAIMER OF IMPLIED WARRANTY:

THERE ARE NO WARRANTIES THAT EXTEND BEYOND THE DESCRIPTION HEREIN. SELLER DISCLAIMS ANY IMPLIED WARRANTY OF MERCHANTABILITY OF THE GOODS OR OF THE FITNESS OF THE GOODS FOR ANY PURPOSE, AND BUYER AGREES THAT THE GOODS ARE SOLD "AS IS."

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Enclosure Specifications:

The NEMA 1 enclosure may be either surface or flush mounted. Gray Powder Coat is available in surface mount only. Door latch for flush mounting may be specified as Screw Driver Latch, Keyed Lock, or Hand Knob. The enclosure is available in white powder coat, gray powder coat, or GPC with brushed stainless steel door.

Contact points are arranged within the enclosure to insure ease in making field-wiring connections.

Relay Specifications:

Lighting Contacts (Standard Units)- Square D 8903 LX Series 4-12 circuit latching relay.

Maximum operating temperature for the contact is 160° F / 71° C.

All Contacts have an A600 NEMA Rating.

Average operating time in milliseconds: 15 pick-up; 16 drop-out.

Note: Contactors may be utilized for 277-vac lighting circuits and, where specified, are companioned with ELC Enclosures as secondary circuit control. Specify – 277 suffix)

Series 1 and 4 Enclosures (WPC or SS W/Gray PC Enclosure)

Contacts are assembled using a 16X14X6 or 18X18X6 enclosure with the *ISIMET* Trim Kit for installations in finished/occupied areas. Flush Trim adds 3.5 inches to both Height and Width Wall Surface dimensions.

Custom Assemblies:

Contact a factory representative for custom assemblies

Important!

All local electrical codes must be followed when connecting the conduit to the service panel and making wiring connections.

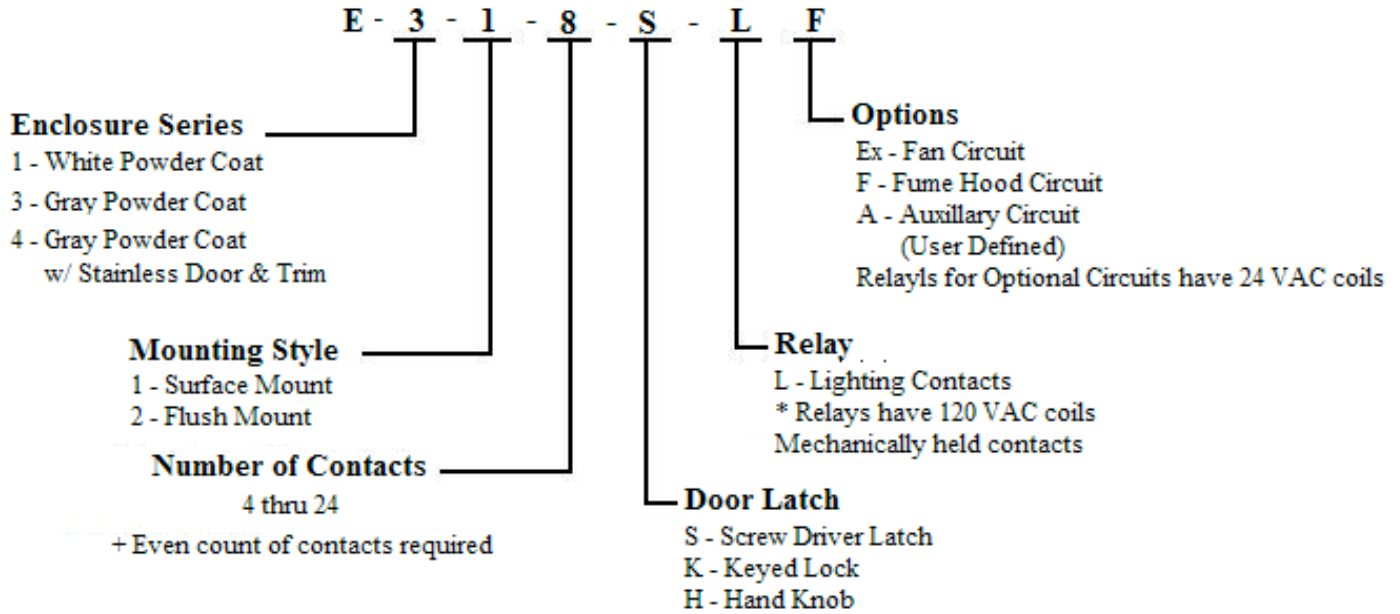
Do not install wiring or cable for integrated systems, remote panic assemblies or other interface wiring within conduit for either 24-vac control or 120-vac line voltage. Each wiring system should be housed in independent conduit and not bundled with wiring for other systems.

Important!

All local electrical codes must be followed when installing this enclosure and making the wiring connections.

Verify that the electrical supply is disconnected prior to making the wiring connections or servicing enclosure.

E Series Enclosures
Pre-Assembled Contact Enclosures
Model Number Description



Enclosure Dimensions:

Mounting Style	Surface 12-circuit Max.	Flush 12-circuit Max.	Surface 14-24 circuits	Flush 14-24 circuits
Height	16	16	18	18
Width	12	14	18	18
Depth	4	6	4	6

Surface Mount units - Screw Cover

Flush Mount units - Hinged Door

All surface mounted units are provided with screw latch removable covers.

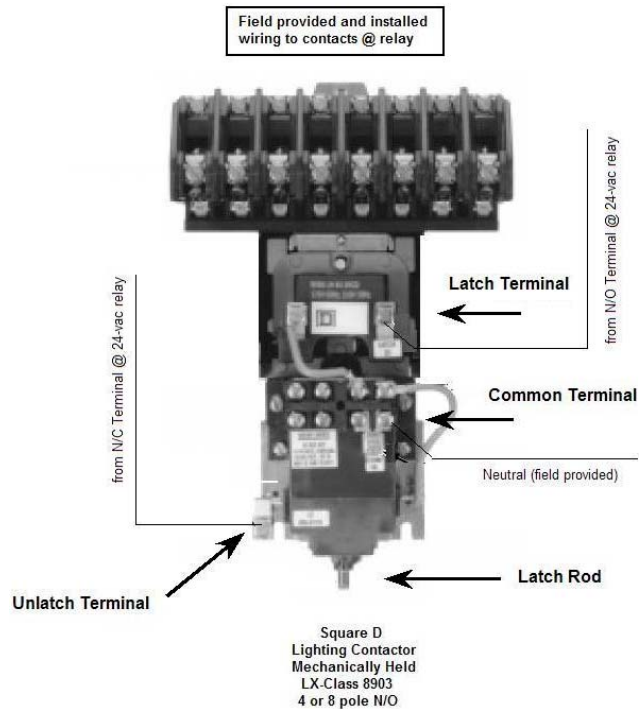
Wiring Information and Instructions:

Enclosures are provided with Model # RIBMN24C panel mounted interface relay. Contact leads from interface relay are connected to coils at each AC Lighting Contactor. Relay is labeled to correspond with the output circuit from the Utility Controller. Field wiring required from Load Center to AC relay contact.

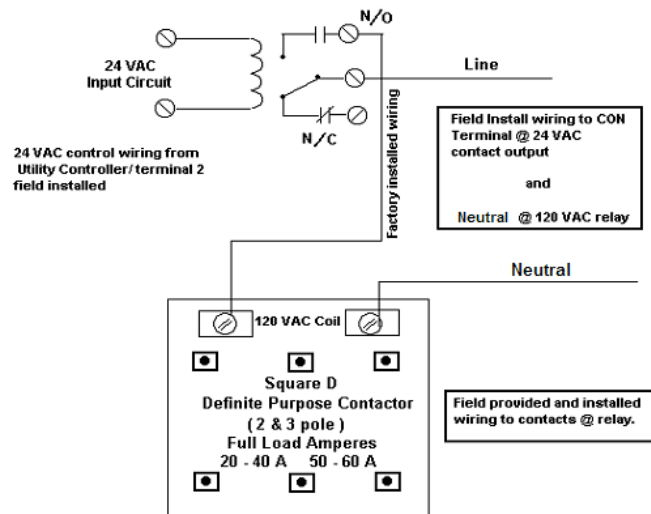
Caution: Except for units equipped with a 120 VAC coil interface relay, only connect 24 VAC control wiring from Utility Controller output circuits to input terminal at interface relay.

Grounding: Enclosure should be grounded by terminating service ground wire to enclosure at grounding lug.
 Load Center: We recommend maximum 20-amp breaker.

Typical Wiring Diagram – Mechanically Held - Latching Contactor



Typical Wiring Diagram – Electrically Held & Optional Definite Purpose Contactor



Optional Contactor:

The E-Series Enclosure can be factory modified to provide space for an optional Definite Purpose Contactor to control devices such as Exhaust Fans. This contactor is controlled by a 24-vac signal from either the remote or auxiliary output circuits at the Utility Controller.

Optional Sequences of Operation are: (Contact factory regarding these options.)

- Contactor energizes with “ems” ON input signal.
- Activating the key switch is required for first engagement.
- “ems” OFF and/or panic state will de-energize contactor.
- Panic state will energize contactor.

Installing the Enclosure

There are two options for mounting the E-Series Enclosure: Flush Mounted and Surface Mounted.

Flush Mounted: Style 2 Only

Prior to installation:

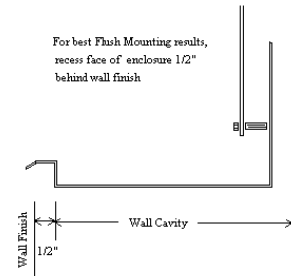
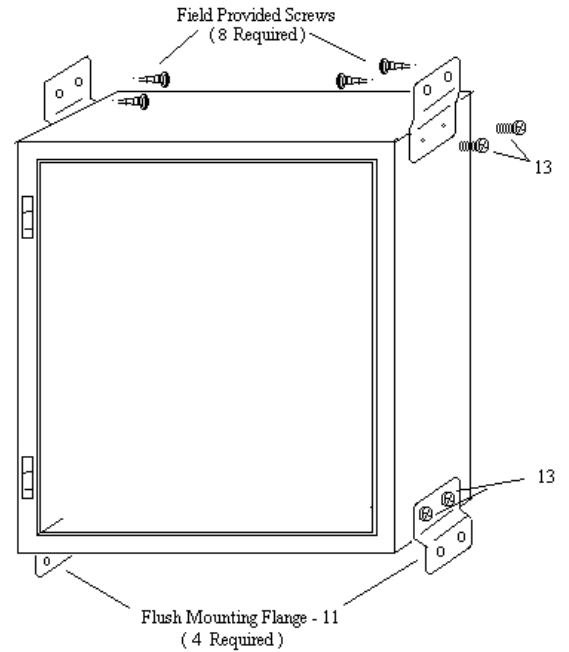
- The Enclosure mounts between two standard spaced wall studs within a minimum 6" wall cavity.
- If stud spacing is greater than that required for the mounting of the controller, add studs to insure a secured mounting.
- The studs should be facing to facilitate securing the enclosure.
- Predetermine wall finish so that the face lip of the enclosure aligns flush with the finished wall surface.

To install:

1. Using the self-starting screws (13), mount the flanges at each side and at the top and bottom of the enclosure.
2. Attach the enclosure to the wall studs with field-provided sheet metal screws per the drawing.
3. Level the enclosure.

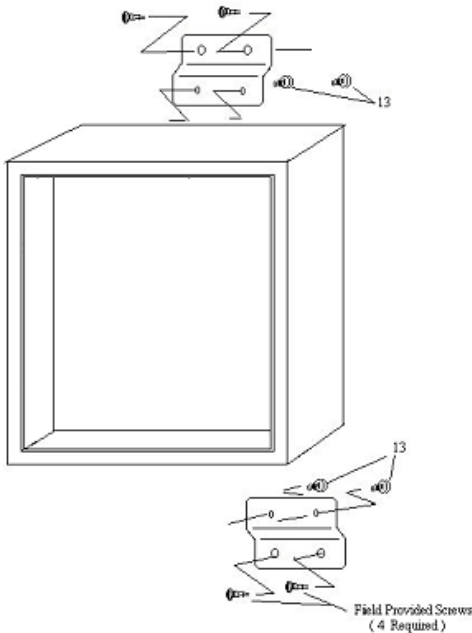
Notes:

- When the Door Panel is mounted onto the controller, it should protrude beyond the wall surface about 1/4".
- Care should be taken at installation time to ensure that this occurs.
- A Flush Mounting Trim Flange is provided with each flush mounted unit. Separate installation instructions and hardware are included with this flange.



Flush Mount Style 2 Enclosures: Clearance around Enclosure:

Care should be taken to allow 1/2" clearance from wall framing and sheet-rock or other wall surface material around the outer surface of the unit to permit the trim to be properly installed.



Surface Mounted: Style 1

Prior to installation:

- Wall finishes should be complete.
- The wall cavity must have sufficient backing or support to ensure a firm mounting of the enclosure to the wall surface.

To install:

1. Secure the surface mount flanges to the back of the enclosure with the self-starting screws (13).
2. Use the field-provided screws to attach the enclosure by the flanges to the wall surface.
3. Level the enclosure.

Surface Mounted: Special Notations

Standard units are provided in a 16X12X4 enclosure with mounting hardware and screw latch removable front panel. The units are intended to be surface mounted.

Custom and units with excess of 12 pole contacts are provided in a 18X18x4 enclosure.

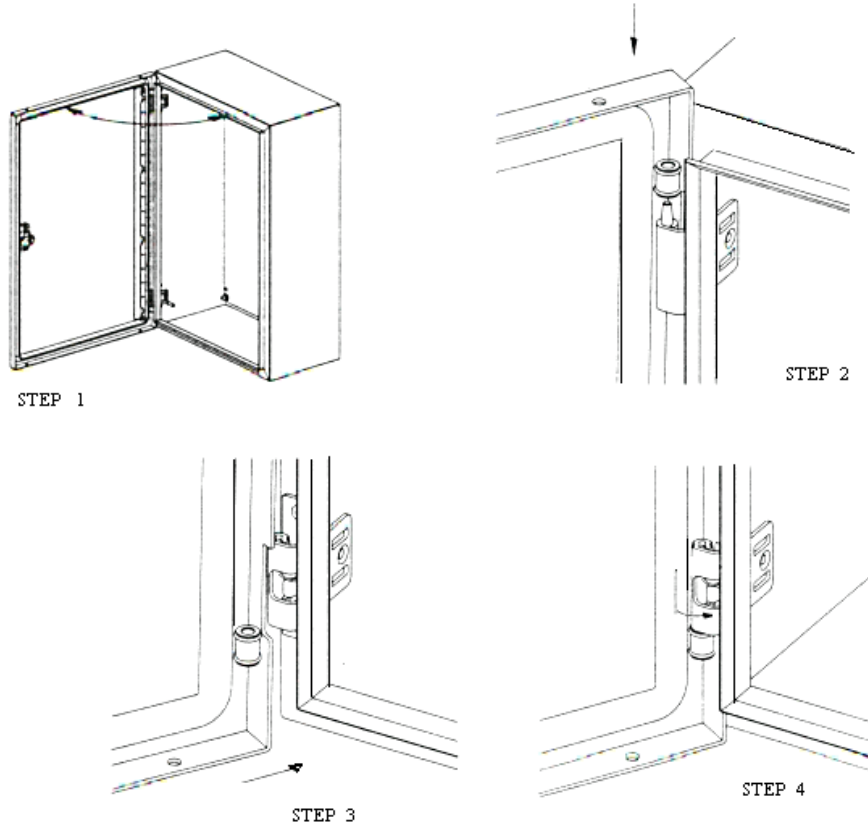
See page 7 – Installing Door Panel and Trim for instructions on Style 2 enclosures.

Installing the Door Panel: Style 2 only

For 16X14 and 18X18 Flush Mounted Enclosures only; Surface mounted units are provided with a removable cover.

To install the Door Panel on the Enclosure:

1. Position the door at 90° – 100° of enclosure.
2. Slide top hinge pin onto fixed hinge post at top of door.
3. Slide lower hinge pin toward lower spring hinge mechanism with hinge pin lever in retract position.
4. With lower hinge pin in position, turn hinge pin lever outward and down, then turn inward to the extended lock position.



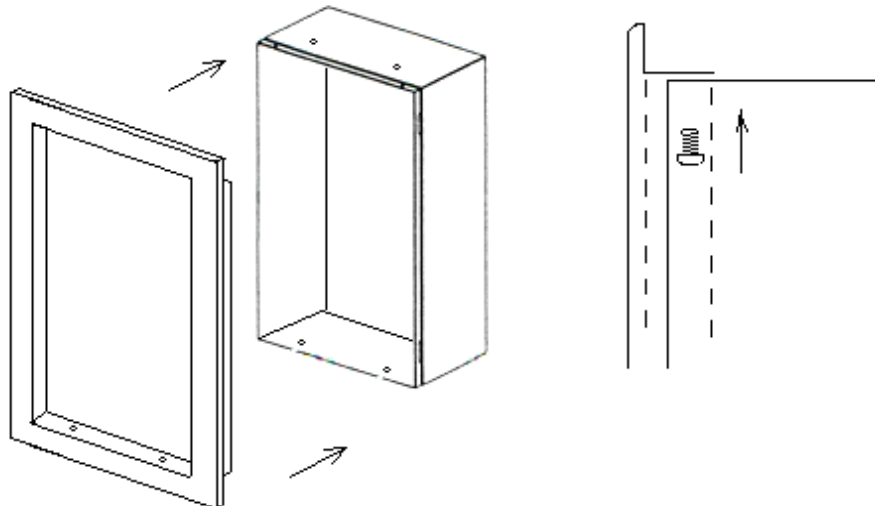
Installing the Flush Door Trim

For 16X14 and 18X18 Flush Mounted Enclosures only; Surface mounted units are provided with a removable cover.

Prior to installing Door Trim, ensure that wall finishes are complete and that the door panel has been installed. Flush Trim adds 3 1/2" to both Height and Width Wall Surface dimensions.

To install the Flush Door Trim:

1. With the door in the open position, slide flush door trim over enclosure.
2. Align holes on enclosure with upper and lower holes in door trim.
3. Insert four (4) 8-32 (provided) screws through enclosure panel and tighten into door trim.





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