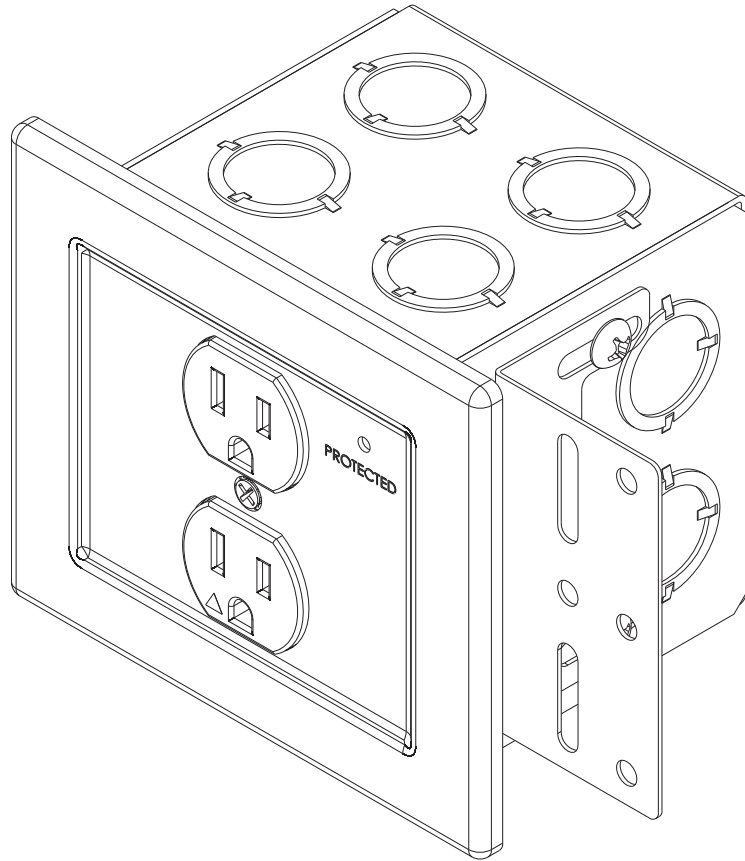


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# INSTALLATION INSTRUCTIONS

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## Power Conditioned Outlet Box


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## DISCLAIMER


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## IMPORTANT SAFETY INSTRUCTIONS!

 **WARNING** alerts you to the possibility of serious injury or death if you do not follow the instructions.


 **CAUTION** alerts you to the possibility of damage or destruction of equipment if you do not follow the corresponding instructions.

 **WARNING:** FAILURE TO READ AND FOLLOW THE FOLLOWING INSTRUCTIONS CAN RESULT IN SERIOUS PERSONAL INJURY, DAMAGE TO EQUIPMENT OR VOIDING OF FACTORY WARRANTY. It is the installer's responsibility to make sure all components are properly assembled and installed using the instructions provided.

**READ ALL INSTRUCTIONS BEFORE USING THIS PRODUCT!!!!**


 **DANGER:** TO REDUCE THE RISK OF ELECTRIC SHOCK:


1. Always turn off power at source before installing the outlet.

 **WARNING:** TO REDUCE THE RISK OF BURNS, FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS:

- Always turn off power at source before servicing or removing the outlet.
- Do not use outdoors - for indoor use only!
- Route cables as shown in these installation instructions.
- To disconnect, turn off power at source.

 **WARNING:** RISK OF ELECTRIC SHOCK!  
Make sure the outlet is properly grounded. See Grounding Instructions.

 **WARNING:** Failure to provide adequate structural strength for this outlet can result in serious personal injury or damage to equipment! It is the installer's responsibility to make sure the structure to which this outlet is attached can support the weight of the box.







 **CAUTION:** This equipment must be installed and assembled by qualified service personnel in accordance with local building and electrical codes.

**NOTE:** Knockouts are provided for ease of installation. Any unused knockouts that have been punched are to be closed up with a metal plug.

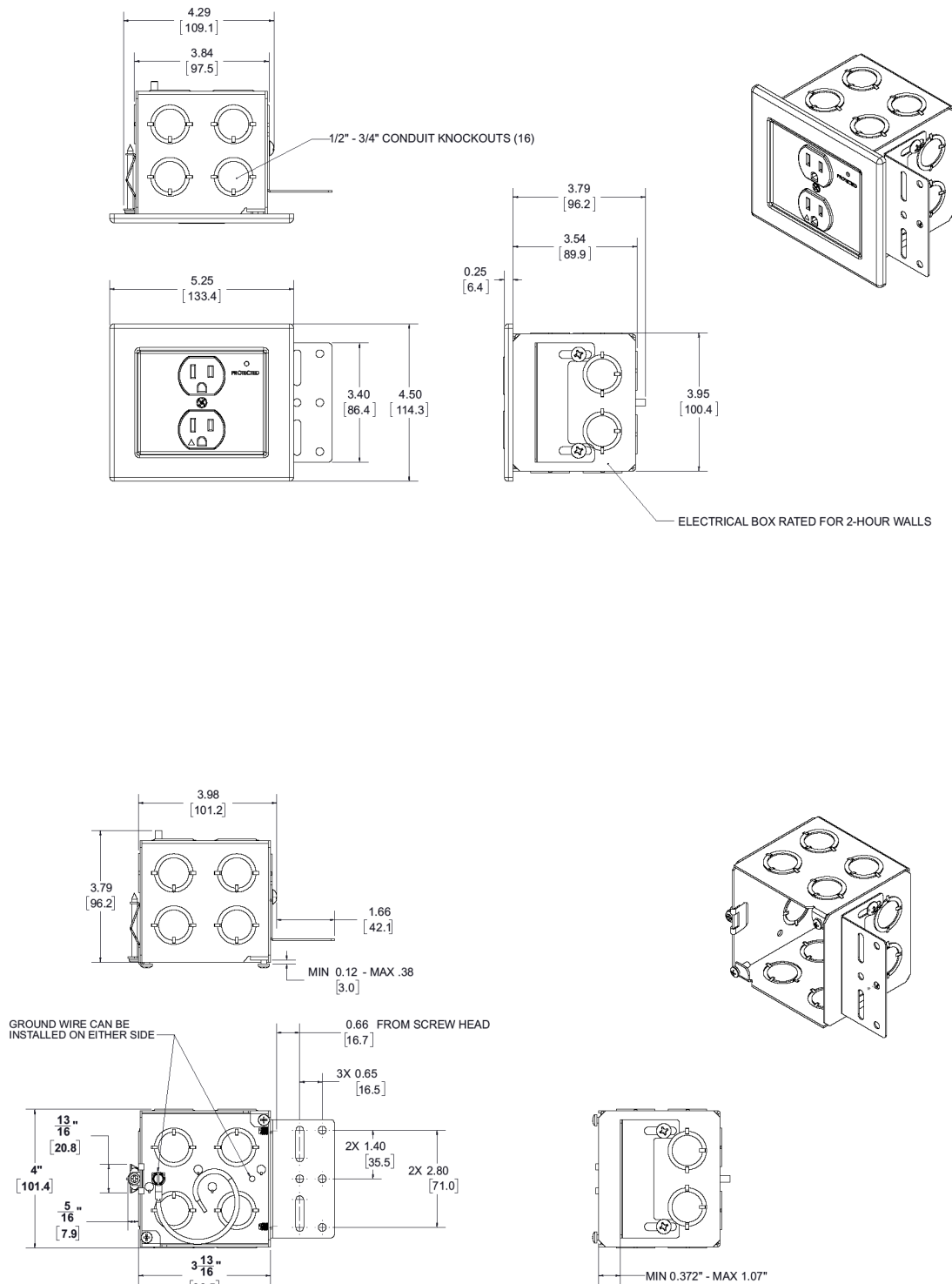
**NOTE:** Ambient Temperature - The manufacturer's maximum ambient temperature is 104°F (40°C) and minimum ambient temperature is 30°F (-1°C) so that the installer is able to determine acceptability of use of Accessories and components.

**--SAVE THESE INSTRUCTIONS--**

**LEGEND**

|  |   |   |   |
|--|---|---|---|
|   | <b>Tighten Fastener</b><br>Apretar elemento de fijación<br>Befestigungsteil festziehen<br>Apertar fixador<br>Serrare il fissaggio<br>Bevestiging vastdraaien<br>Serrez les fixations                  |   | <b>Pencil Mark</b><br>Marcar con lápiz<br>Stiftmarkierung<br>Marcar com lápis<br>Segno a matita<br>Potloodmerkten<br>Marquage au crayon |
|   | <b>Loosen Fastener</b><br>Aflojar elemento de fijación<br>Befestigungsteil lösen<br>Desapertar fixador<br>Allentare il fissaggio<br>Bevestiging losdraaien<br>Desserrez les fixations                 |   | <b>Drill Hole</b><br>Perforar<br>Bohrloch<br>Fazer furo<br>Praticare un foro<br>Gat boren<br>Percez un trou                             |
|  | <b>Phillips Screwdriver</b><br>Destornillador Phillips<br>Kreuzschlitzschraubendreher<br>Chave de fendas Phillips<br>Cacciavite a stella<br>Kruiskopschroevendraaier<br>Tournevis à pointe cruciforme |  | <b>Adjust</b><br>Ajustar<br>Einstellen<br>Ajustar<br>Regolare<br>Afstellen<br>Ajuster   |

## DIMENSIONS



**\*\*BOLD DIMENSIONS TO BE USED FOR DRYWALL OPENING\*\***

AC LINE POWER CONDITIONER 125 V~, 60 Hz, 15 A

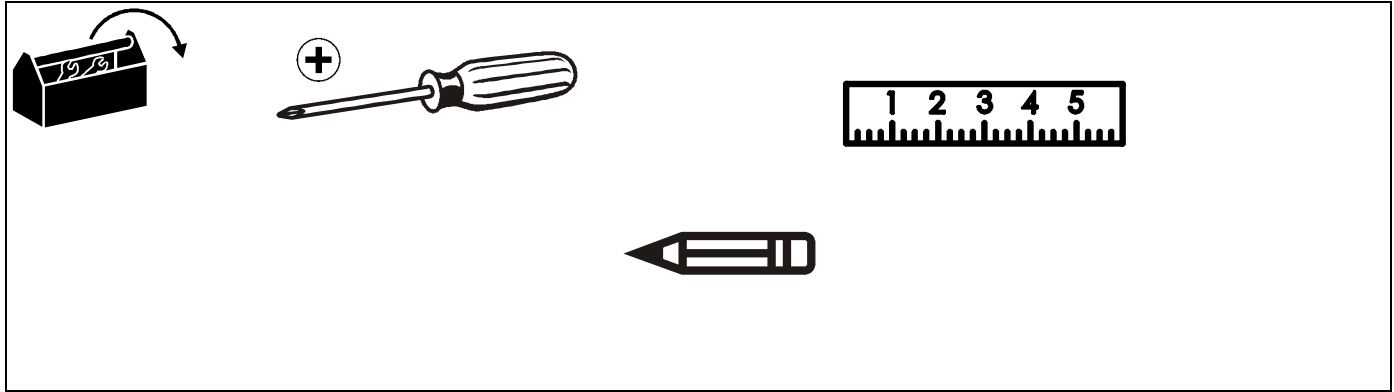
4x14 AWG STRANDED WIRE W/ ISOLATED GROUND

SURGE PROTECTION

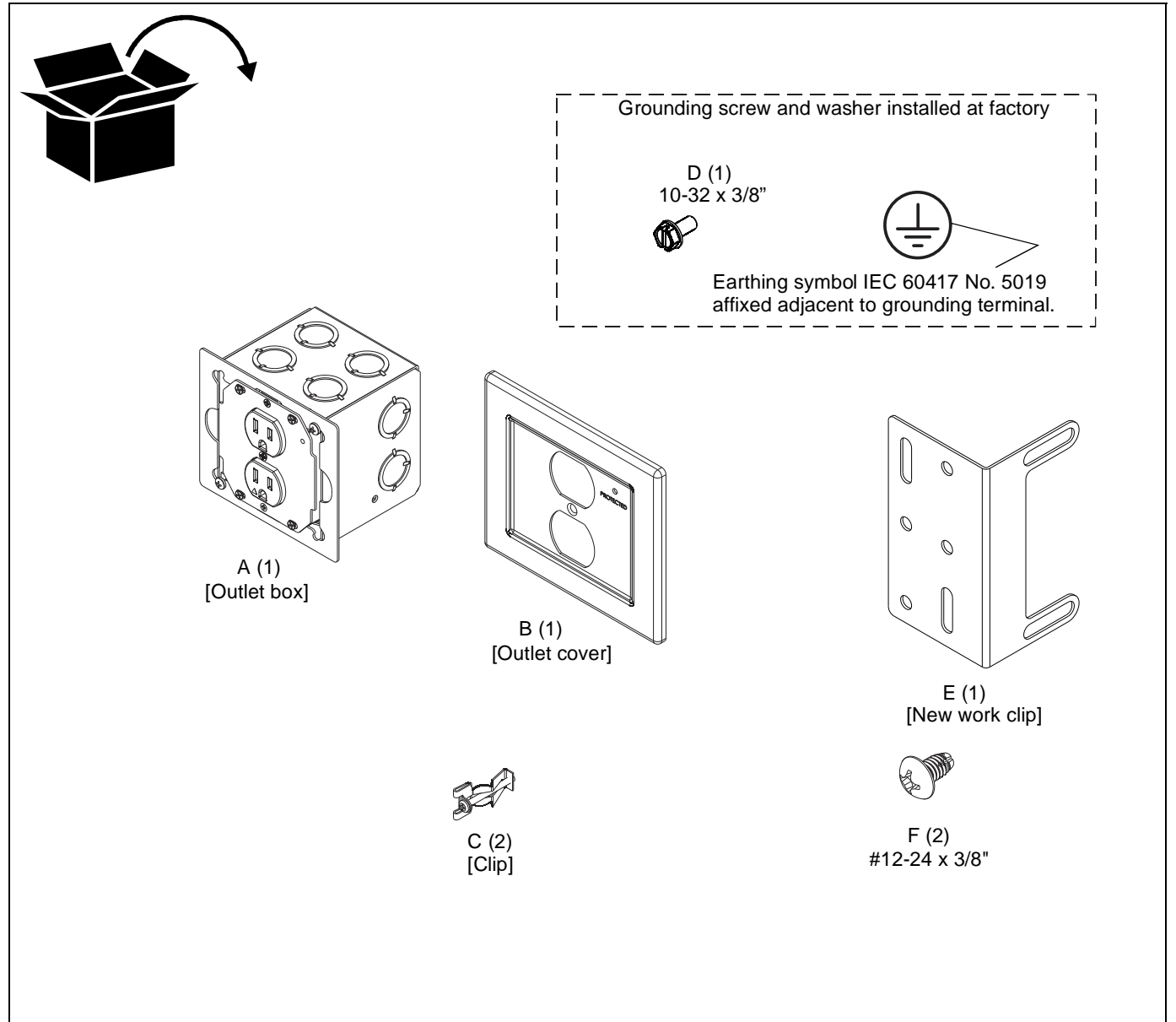
EMI/RFI FILTERING

POWER CONSUMPTION: <0.5 WATT

**TOOLS REQUIRED FOR INSTALLATION**



**PARTS**



## Isolated Ground Receptacle

This product incorporates an isolated ground receptacle, identified by the orange triangle on its face. This feature may be useful to reduce common noise in the connected equipment. Its intended use is to reduce electrical noise (electromagnetic interference) by purposely insulating the grounding circuit from any metallic wiring system. The ground pin of the receptacle is connected to the green/yellow wire and is isolated from the metal mounting yoke of the receptacle. The accessible metal of the product is connected to the green wire. If it is not desired to use this feature, connect the green/yellow and green wires together.

## References

Application Guide for Isolated Ground Wiring Devices 2007. National Electrical Manufacturers Association (NEMA)

IEEE Std 1100™-2005, "IEEE Recommended Practice for Powering and Grounding Electronic Equipment" (Emerald Book), Section 8.5.3.2.

IEEE Std 142™-2007, "IEEE Recommended Practice for Grounding of Industrial and Commercial Power Systems" (Green Book), Sections 5.5.1, 5.5.2.

NFPA-70, "National Electrical Code", Article 250.146 Connecting Receptacle Grounding Terminal to Box.

- (D) Isolated Ground Receptacles. Where installed for the reduction of electrical noise (electromagnetic interference) on the grounding circuit, a receptacle in which the grounding terminal is purposefully insulated from the receptacle mounting means shall be permitted. The receptacle grounding terminal shall be connected to an insulated equipment grounding conductor run with the circuit conductors. This equipment grounding conductor shall be permitted to pass through one or more panel boards without a connection to the panel board grounding terminal bar as permitted in 408.40, Exception, so as to terminate within the same building or structure directly at an equipment grounding conductor terminal of the applicable derived system or service. Where installed in accordance with the provisions of this section, this equipment grounding conductor shall also be permitted to pass through boxes, wire ways, or other enclosures without being connected to such enclosures.
- Informational Note: Use of an isolated equipment grounding conductor does not relieve the requirement for grounding the raceway system and outlet box.

C22.2 No. 1, "Canadian Electrical Code, Part 1", Rule 10-906 Bonding conductor connection to circuits and equipment.

- (6) A bonding jumper shall be installed to connect the bonding conductor to the grounding terminal of a receptacle and in such a manner that disconnection or removal of the receptacle will not interfere with, or interrupt grounding continuity.
- (7) In the case of metallically enclosed systems where the grounding path is provided by the metal enclosure, a bonding jumper shall be installed to bond the grounding terminal of the receptacle to the enclosure.
- (8) Notwithstanding Sub-rules (6) and (7), the bonding jumper, in the case of receptacles having grounding terminals isolated from the mounting strap required for special equipment, shall be

permitted to be extended directly back to the distribution panel.

## INSTALLATION

The EGX-SF2 is intended for use in installations where an existing drywall finished wall or ceiling is present. It may only be installed in 1/2" or 5/8" thick standard drywall using the old work clips supplied. It may also be installed at a new work site directly to wood or steel studs using new work clip. Proceed to "New Work Clip" Section to proceed with this installation.

**NOTE:** The EGX-SF2 must be connected to a 15 Amp branch circuit.



**WARNING:** IMPROPER INSTALLATION CAN RESULT IN DEATH OR SERIOUS PERSONAL INJURY! This accessory should be installed by qualified personnel.

## EGX-SF2 Site Preparation - Drywall/Ceiling

1. Identify a suitable wall or ceiling location for the accessory.



**WARNING:** ELECTRICAL SHOCK HAZARD! CUTTING OR DRILLING INTO ELECTRICAL WIRES OR CABLES CAN CAUSE DEATH OR SERIOUS PERSONAL INJURY! ALWAYS make certain area behind mounting surfaces is free of electrical wires and cables before cutting, drilling, or installing fasteners.



**WARNING:** EXPLOSION AND FIRE HAZARD! CUTTING OR DRILLING INTO GAS PLUMBING CAN CAUSE DEATH OR SERIOUS PERSONAL INJURY! ALWAYS make certain area behind mounting surfaces is free of gas, water, waste, or any other plumbing before cutting, drilling, or installing fasteners.

2. Using a stud sensor, locate and mark studs.

**NOTE:** EGX-SF2 is designed to fit in a drywall surface.

3. Using housing as a template, draw pencil line completely around housing.
4. Measure the marked area and compare to the dimensions shown in Figure 1. If measurements do not exceed the maximum dimensions shown in Figure 1, continue to step 5. If they do, adjust markings to match dimensions in Figure 1.
5. Cut drywall on *outside* edge of line and remove.

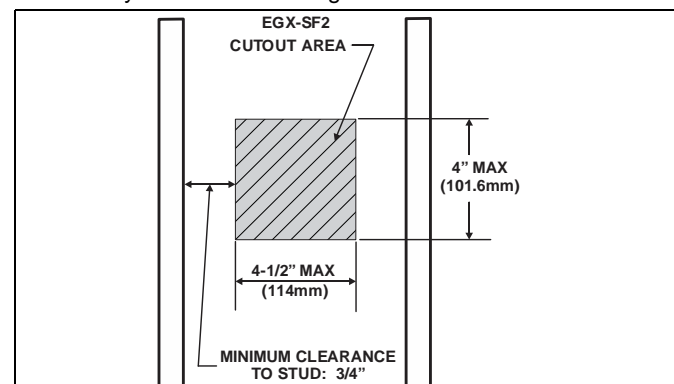


Figure 1

Installing EGX-SF2

- 1. Loosen two Phillips head screws holding EGX-SF2 outlet box to outer housing. (See Figure 2)
- 2. Rotate outlet box counter-clockwise until it is free to be removed from housing. (See Figure 2)
- 3. Remove outlet box from housing. (See Figure 2)

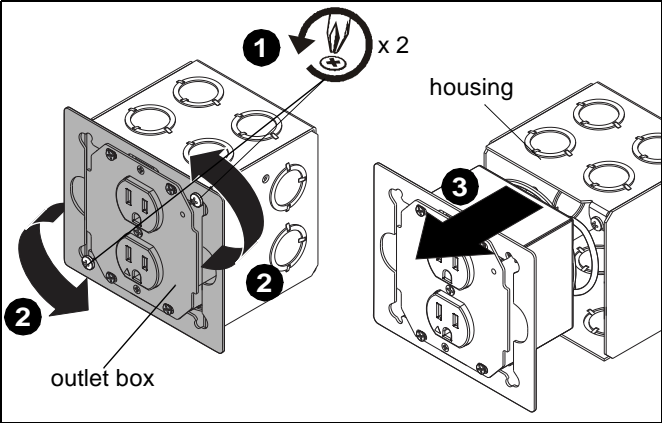


Figure 2

- 4. Wire the EGX-SF2 outlet box as required. Refer to tables to the right for input and output specifications. (See Figure 3)



**CAUTION:** Isolated ground-mounting means NOT grounded. Grounding wire connection required.

**IMPORTANT ! :** If a separate isolated green/yellow ground wire is installed in the building wiring, attach it separately to the green/yellow isolated ground wire on box. If there is no separate green/yellow isolated ground wire, connect green ground wire to both green/yellow isolated ground wire and green box ground wire on box.

**NOTE:** The grounding conductors serving this outlet are to be connected to earth ground at the service equipment or other acceptable building earth ground such as the building frame in the case of a high-rise steel-frame structure. Connections should be made with minimum AWG 14 copper wire intended for use on a 15 Amp circuit. The conductors used to connect the outlet to the line and to ground shall not be any longer than necessary and shall avoid unnecessary bends.

**NOTE:** An insulated grounding conductor that is identical in size and insulation material and thickness to the grounded and ungrounded circuit supply conductors, except that it is green with or without one or more yellow stripes, is to be installed as part of the circuit that supplies the outlet. Refer to Table 250-122 of the National Electrical Code regarding the appropriate size of the grounding conductor.

**NOTE:** Pressure terminal or pressure splicing connectors and soldering lugs used in the installation of the outlet shall be identified as being suitable for the material of the conductors. Conductors of dissimilar metals shall not be intermixed in a terminal or splicing connector where physical contact occurs between dissimilar conductors unless the device is identified for the purpose and conditions of use.

| Input                    |   |
|--------------------------|---|
| Input voltage, frequency | 125 V AC, 60 Hz   |
| Input connection type    | 4x14 AWG stranded, UL Style 1015, CSA TEW   |
| Input Wire colors        | Black - Line<br>White - Neutral<br>Green - Box Ground<br>Green/Yellow - Isolated Ground |
| Input wire length (ft.)  | 1 (with a 3/4" stripped end)  |

| Output            |   |
|-------------------|---|
| Output            | 15 A, 1875 W                                      |
| Power consumption | <0.5 watt   |
| Fuses             | Thermal current interrupting circuits are in MOVs |
| Quantity/Type     | Duplex NEMA 5-15R Isolated Ground Receptacle      |
| Color/Markings    | Grey with protection symbol (Orange triangle)     |

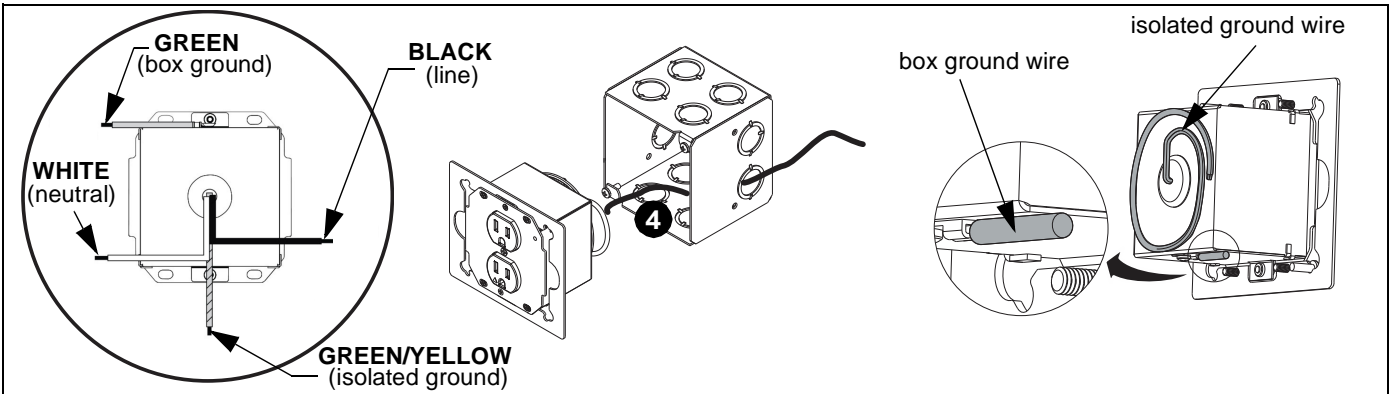


Figure 3

5. Replace the outlet box into the EGX-SF2 housing. (See Figure 4)
6. Rotate outlet box clockwise until it is in proper position to be secured to the EGX-SF2 housing. (See Figure 4)
7. Tighten two Phillips screws to secure outlet box to EGX-SF2 housing. (See Figure 4)

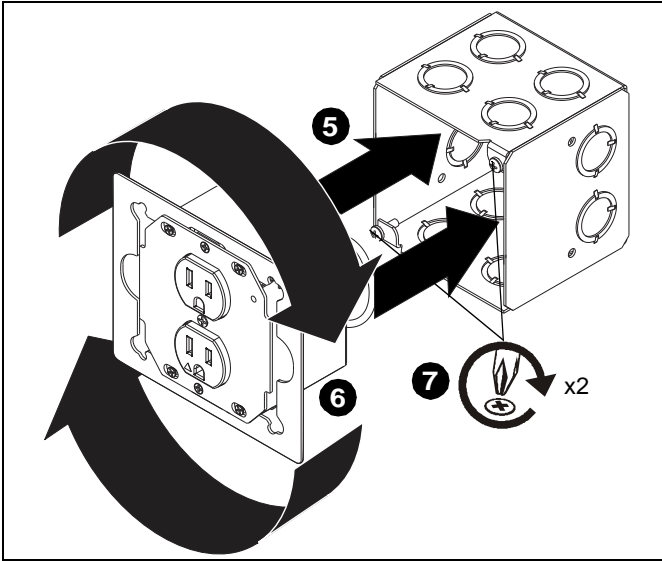


Figure 4

8. Install two clips (C) onto either side of EGX-SF2 housing. (See Figure 5)

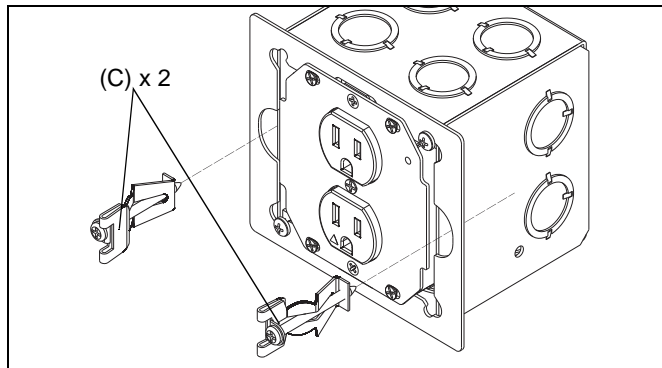


Figure 5

9. Insert EGX-SF2 housing into drywall opening. (See Figure 6)

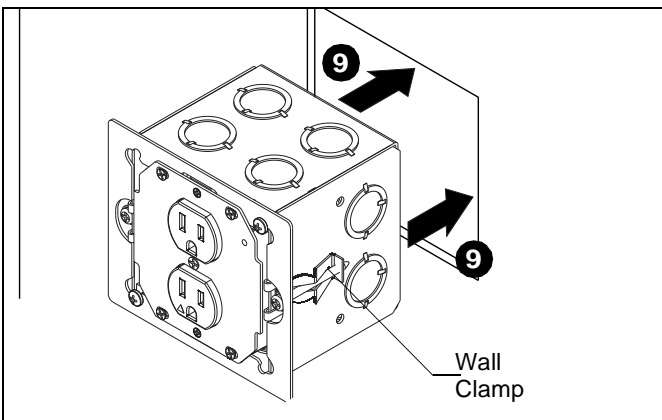


Figure 6

10. Tighten screws on the two drywall clamps so that they are locked in place against the drywall, and not laying flat against the EGX-SF2. (See Figure 7)

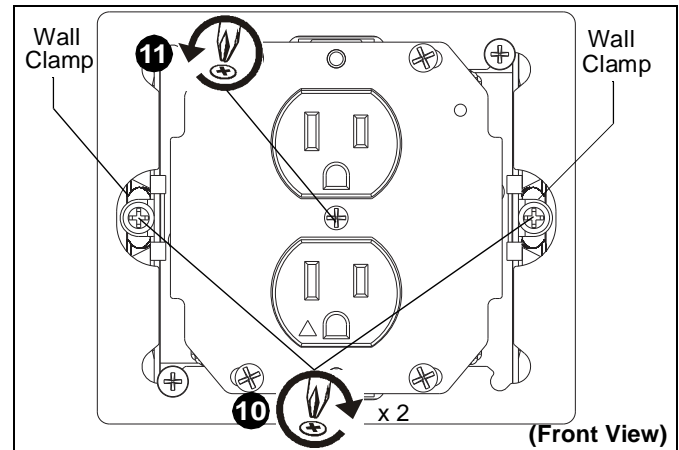


Figure 7

11. Remove Phillips flat head screw and locking washer from in between outlets. (See Figure 7)
12. Install faceplate (B) onto EGX-SF2 using one Phillips flat head screw and locking washer removed in Step 11. (See Figure 8)

**NOTE:** Make sure LED light on outlet box lines up with hole location on faceplate (B). (See Figure 8)

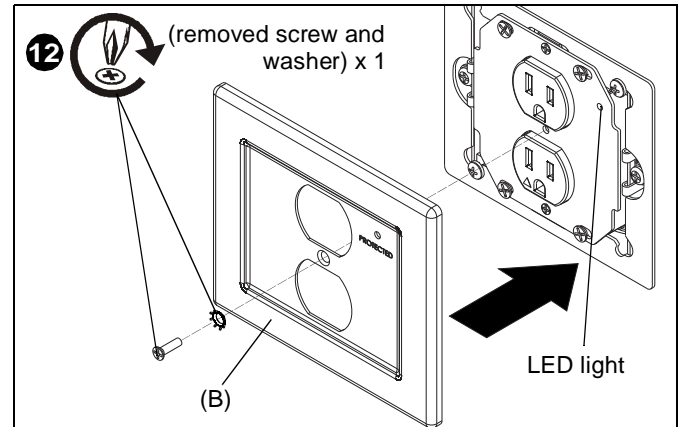


Figure 8

### Outlet Box Use

**NOTE:** The "PROTECTED" light indicates that the surge protection circuitry is active and operational. (See Figure 9)

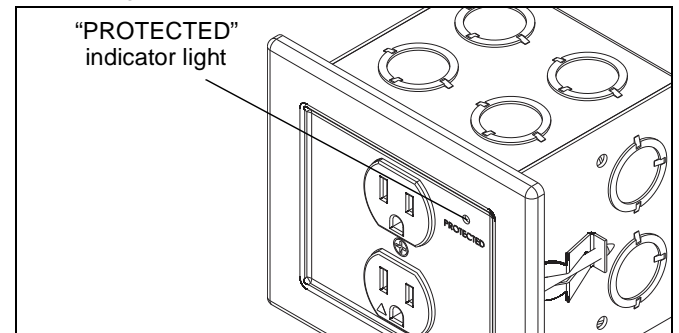


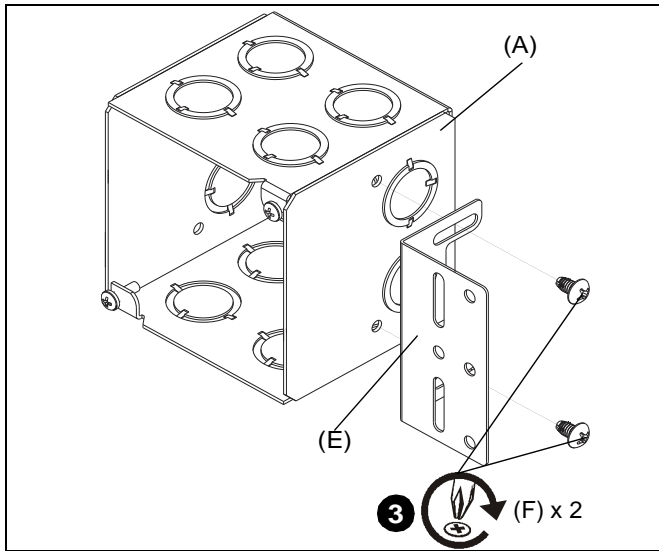
Figure 9



## Using New Work Clip

**NOTE:** This installation is only recommending if installing to a new work site where the drywall has not been installed yet.

1. Remove outlet box from housing following Steps 1-3 in the "Installing EGX-SF2" Section.
2. Locate desired mounting location next to a wood or steel stud.
3. Use two #12-24 x 3/8" Phillips tapping screws (F) to secure new work clip (E) to outside of outlet box (A). (See Figure 10)

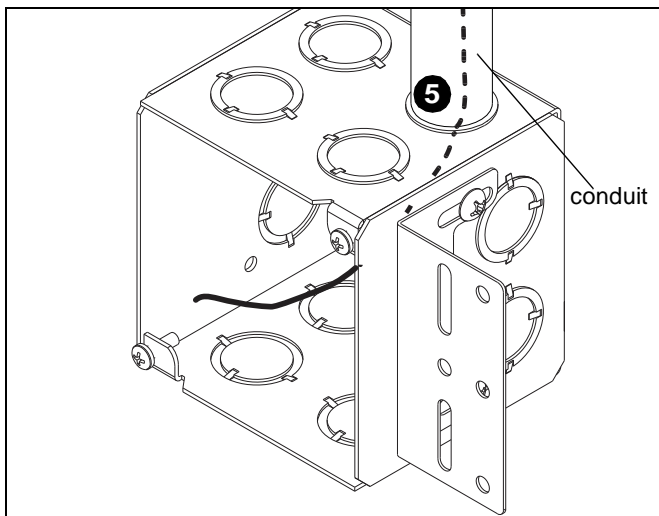


**Figure 10**

4. Install to stud using mounting holes in new work clip (E) and appropriate hardware depending on type of stud.

**NOTE:** Refer to marks on the side of the outlet box to attach work clip at the right location based on the thickness of the drywall to be installed.

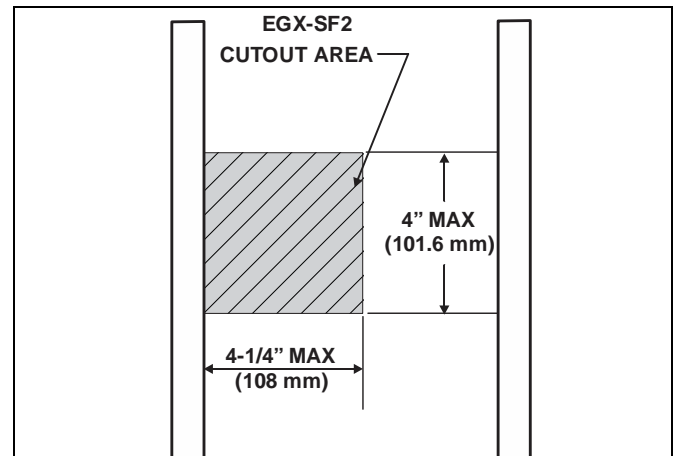
5. Route wires from electrical conduit through knockout hole per local building code. Use wire nuts to safely terminate wires until drywall is installed. (See Figure 11)



**Figure 11**

6. Install drywall around outlet box. Cut an opening around the box meeting the dimensions shown in Figure 12 next to the stud used to attach new work clip. (See Figure 12)

**NOTE:** Notch appropriate side of drywall to accommodate the old work clip (C).



**Figure 12**

7. Connect wires to EGX-SF2 referring to tables on page 3 for input and output specifications. (See Figure 3)



**CAUTION:** Isolated ground-mounting means NOT grounded. Grounding wire connection required.

**IMPORTANT ! :** If a separate isolated green/yellow ground wire is installed in the building wiring, attach it separately to the green/yellow isolated ground wire on box. If there is no separate green/yellow isolated ground wire, connect green ground wire to both green/yellow isolated ground wire and green box ground wire on box.

**NOTE:** The grounding conductors serving this outlet are to be connected to earth ground at the service equipment or other acceptable building earth ground such as the building frame in the case of a high-rise steel-frame structure. Connections should be made with minimum AWG 14 copper wire intended for use on a 15 Amp circuit. The conductors used to connect the outlet to the line and to ground shall not be any longer than necessary and shall avoid unnecessary bends.

**NOTE:** An insulated grounding conductor that is identical in size and insulation material and thickness to the grounded and ungrounded circuit supply conductors, except that it is green with or without one or more yellow stripes, is to be installed as part of the circuit that supplies the outlet. Refer to Table 250-122 of the National Electrical Code regarding the appropriate size of the grounding conductor.

**NOTE:** Pressure terminal or pressure splicing connectors and soldering lugs used in the installation of the outlet shall be identified as being suitable for the material of the conductors. Conductors of dissimilar metals shall not be intermixed in a terminal or splicing connector where physical contact occurs between dissimilar conductors unless the device is identified for the purpose and conditions of use.

8. Replace the outlet box into the EGX-SF2 housing. (See Figure 13)
9. Rotate outlet box clockwise until it is in proper position to be secured to the EGX-SF2 housing.
10. Tighten two Phillips screws to secure outlet box to EGX-SF2 housing. (See Figure 13)

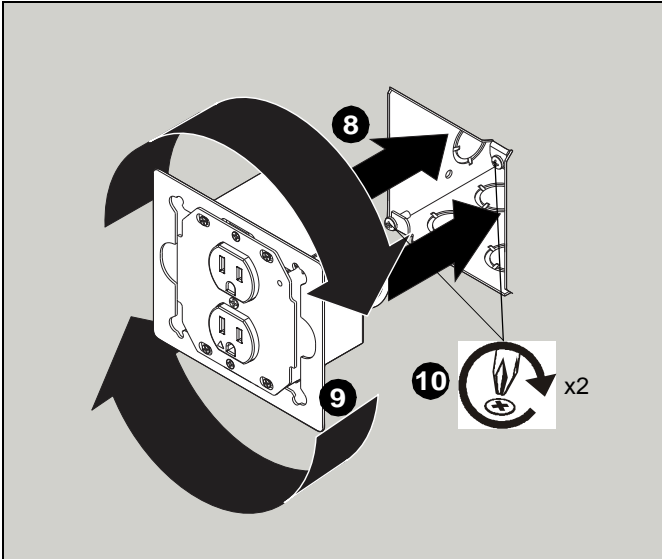


Figure 13

11. Install one clip (C) onto opposite side of EGX-SF2 from where the new work clip is installed. (See Figure 14)

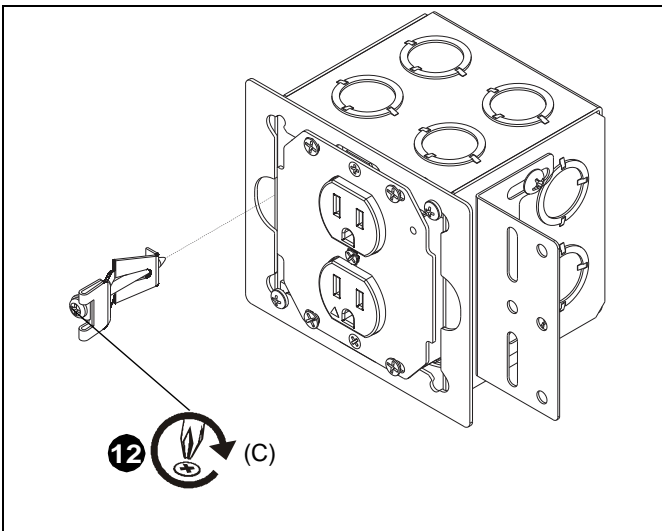


Figure 14

12. Tighten screw on the drywall clamp so that it is locked in place against the drywall, and not laying flat against the EGX-SF2. (See Figure 14)

13. Remove Phillips flat head screw and locking washer from in between outlets. (See Figure 15)

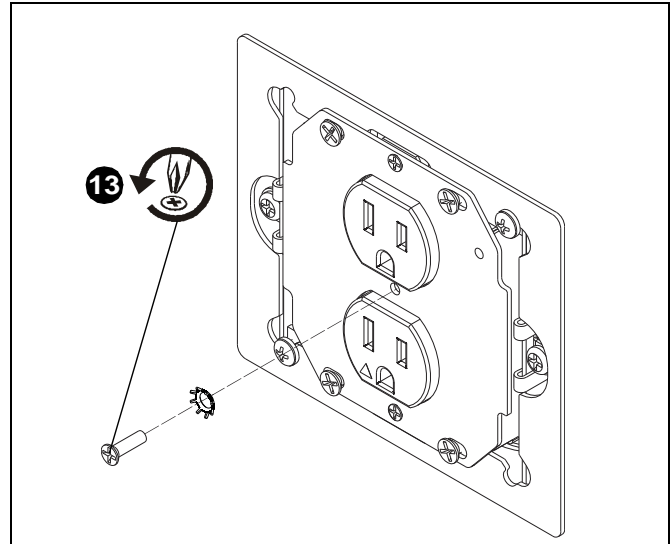


Figure 15

14. Install faceplate (B) onto EGX-SF2 using one Phillips flat head screw and locking washer removed in Step 5. (See Figure 16)

**NOTE:** Make sure LED light on outlet box lines up with hole location on faceplate (B). (See Figure 16)

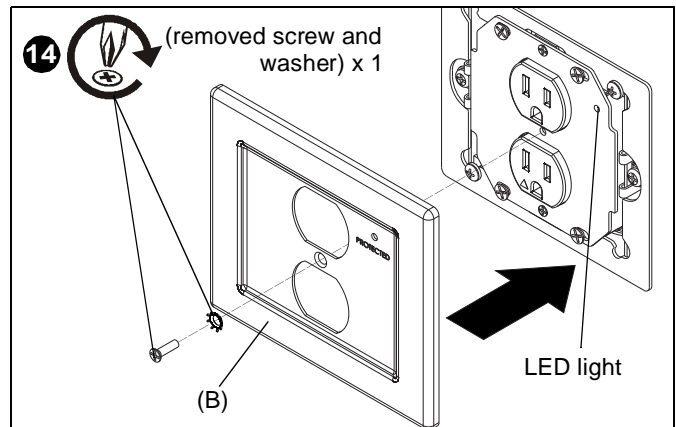


Figure 16

### Outlet Box Use

**NOTE:** The "PROTECTED" light indicates that the surge protection circuitry is active and operational. (See Figure 17)

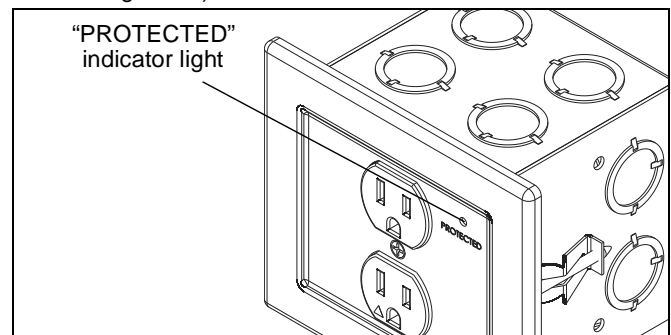


Figure 17





Our Mounts. **Your Vision.**

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