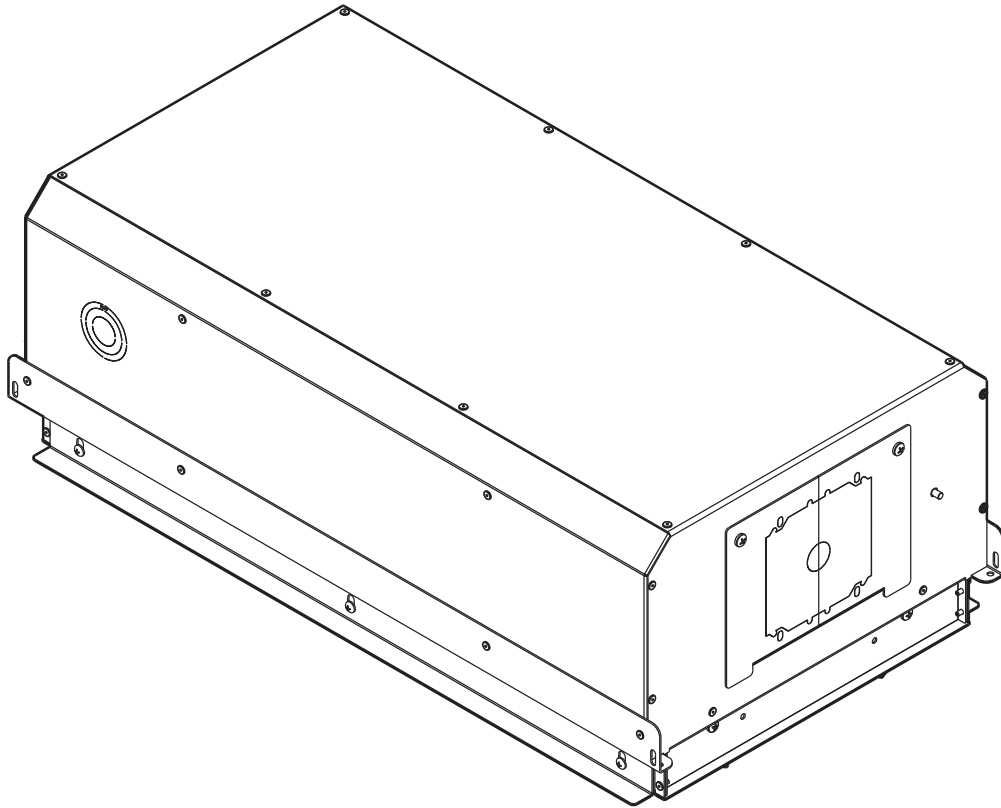


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# INSTALLATION INSTRUCTIONS

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## Ceiling Tile Storage Kit

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## DISCLAIMER

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## DEFINITIONS

**MOUNTING SYSTEM:** A MOUNTING SYSTEM is the primary Chief product to which an accessory and/or component is attached.

**ACCESSORY:** AN ACCESSORY is the secondary Chief product which is attached to a primary Chief product, and may have a component attached or setting on it.

**COMPONENT:** A COMPONENT is an audiovisual item designed to be attached or resting on an accessory or mounting system such as a video camera, CPU, screen, display, projector, etc.



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



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



## IMPORTANT SAFETY INSTRUCTIONS



**WARNING:** Failure to read, thoroughly understand, and follow all 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 mounting systems are properly assembled and installed using the instructions provided.



**WARNING:** Failure to provide adequate structural strength for this mounting system can result in serious personal injury or damage to equipment! It is the installer's responsibility to make sure the structure to which this mounting system is attached can support five times the combined weight of all equipment. Reinforce the structure as required before installing the mounting system.



**WARNING:** Exceeding the weight capacity can result in serious personal injury or damage to equipment! It is the installer's responsibility to make sure the combined weight of all components and accessories located in the mounting system does not exceed 100 lbs (45.4 kg).



**WARNING:** Use this mounting system only for its intended use as described in these instructions. Do not use attachments not recommended by the manufacturer.



**WARNING:** Never operate this mounting system if it is damaged. Return the mounting system to a service center for examination and repair.



**WARNING:** For indoor use only.

**IMPORTANT ! :** The MSP-CACMS491 has been designed to be mounted recessed into a suspended ceiling secured by a WireVice system.

**IMPORTANT ! :** The MSP-CACMS491 has been designed to support a single electrical receptacle or a double receptacle.

**NOTE:** It is the installer's responsibility to ensure that the enclosure is bonded to the ground in the switch box, in accordance with the National Electric Code, ANSI/NFPA 70 or Canadian Electrical Code, CSA C22.1. A green grounding screw is provided in the enclosure for the purpose, if required.

**NOTE:** Spacings - To ensure safe operation of the equipment installed in the enclosure, per National Electric Code, ANSI/NFPA 70, a minimum separation between power cords and signal or communication cables may be required.

**NOTE:** This Cabinet System is for use with Listed ITE or Audio/Video equipment only.

**NOTE:** When selecting a Listed 120 Vac Receptacle for use as the main power source for the MSP-CACMS491 boxes (to power the A/V equipment), make sure that AC Receptacle is rated at least 15A and it is used in the building's AC branch circuit that is connected to a circuit breaker rated at least 15A. Do not connect more than 12A from the 15A Receptacle, or 16A from the 20A Receptacle.

In the U.S., the equipment shall be installed per the applicable requirements of the National Electrical Code, ANSI/NFPA 70.

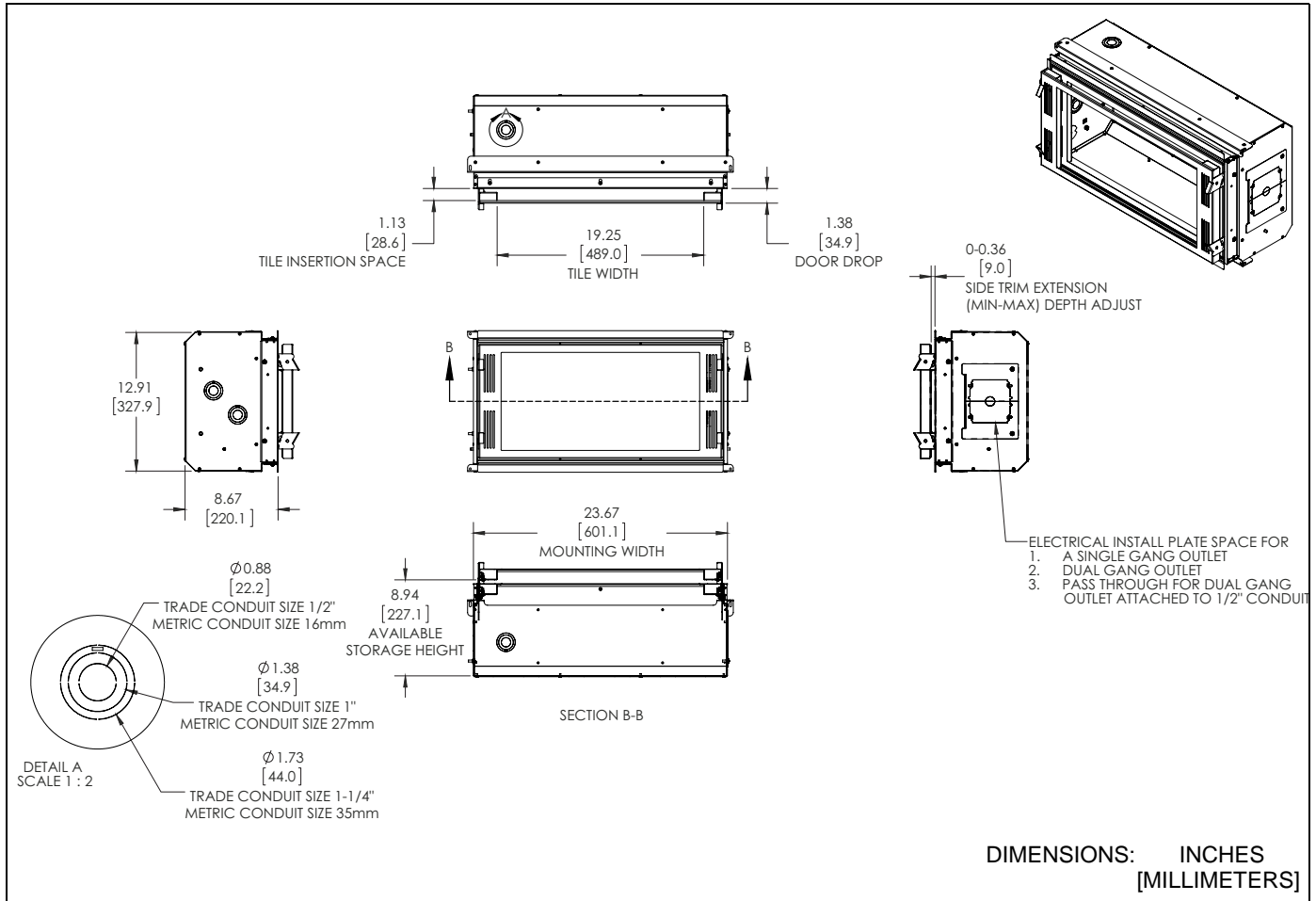
In Canada, the equipment shall be installed per the applicable requirements of the Canadian Electrical Code, CSA C22.1.

**NOTE:** The MSP-CACMS491 consists of:










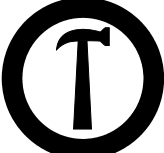
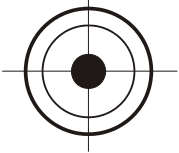

- MSP-CACMS491 1x2 Standard Ceiling Box

**--SAVE THESE INSTRUCTIONS--**

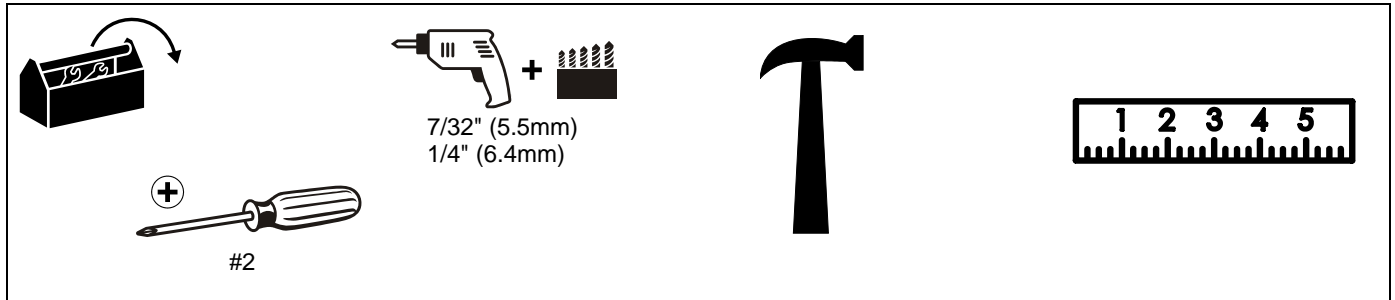
**DIMENSIONS**



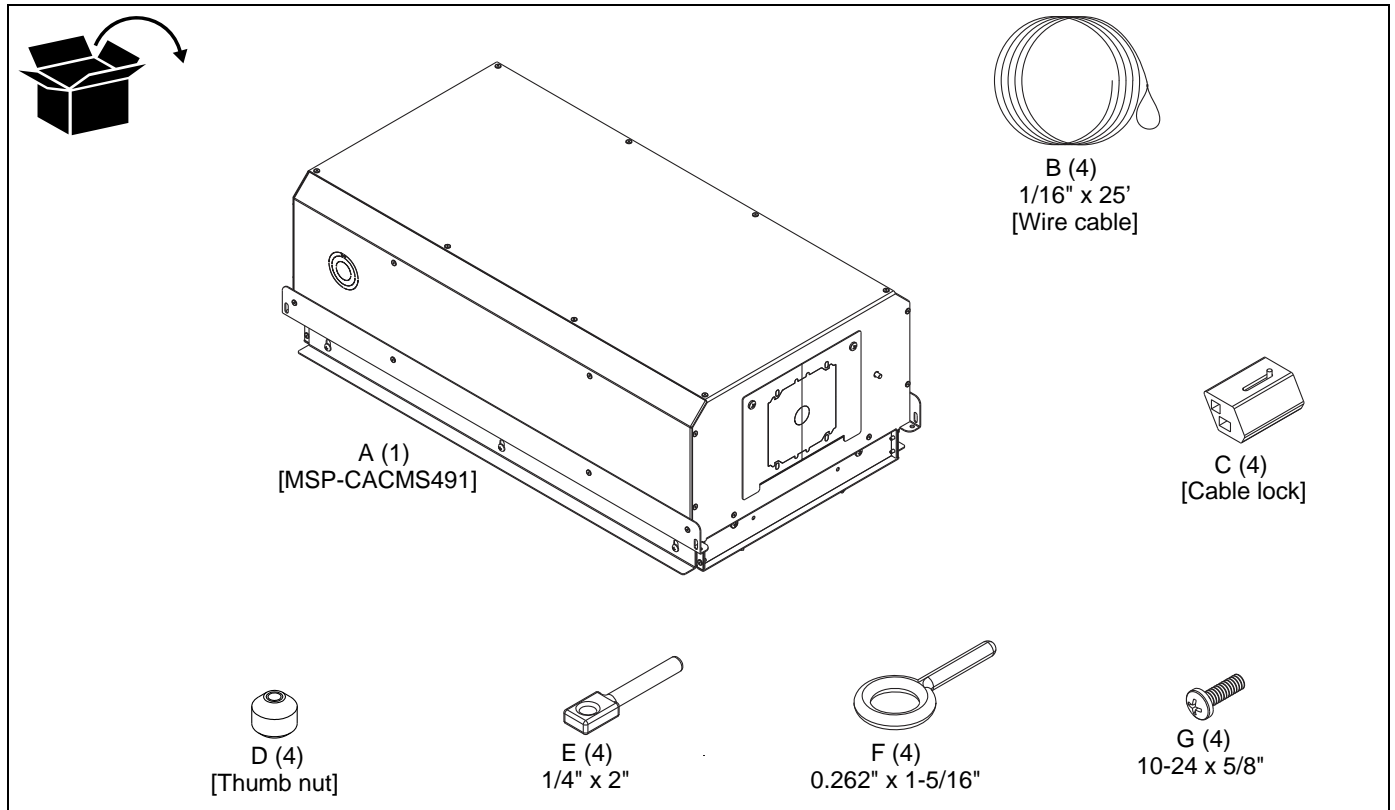
## LEGEND

	<b>Tighten Fastener</b> Apretar elemento de fijación Befestigungsteil festziehen Apertar fixador Serrare il fissaggio Bevestiging vastdraaien Serrez les fixations		<b>Pencil Mark</b> Marcar con lápiz Stiftmarkierung Marcar com lápis Segno a matita Potloodmerkteken Marquage au crayon
	<b>Loosen Fastener</b> Aflojar elemento de fijación Befestigungsteil lösen Desapertar fixador Allentare il fissaggio Bevestiging losdraaien Desserrez les fixations		<b>Drill Hole</b> Perforar Bohrloch Fazer furo Praticare un foro Gat boren Percez un trou
	<b>Phillips Screwdriver</b> Destornillador Phillips Kreuzschlitzschraubendreher Chave de fendas Phillips Cacciavite a stella Kruiskopschroevendraaier Tournevis à pointe cruciforme		<b>Adjust</b> Ajustar Einstellen Ajustar Regolare Afstellen Ajuster
	<b>Flathead Screwdriver</b> Llave de boca Gabelschlüssel Chave de bocas Chiave a punte aperte Steeksleutel Clé à fourche		<b>Remove</b> Quitar Entfernen Remover Rimuovere Verwijderen Retirez
	<b>By Hand</b> A mano Von Hand Com a mão A mano Met de hand À la main		<b>Hammer</b> Martillo Hammer Martelo Martello Hamer Marteau
	<b>Target of Projector</b> Punto de enfoque del proyector Ziel des Projektors Mira do projector Punto di proiezione Doel van de projector Cible du projecteur		<b>Security Wrench</b> Llave de seguridad Sicherheitsschlüssel Chave de segurança Chiave di sicurezza Veiligheidssleutel Clé de sécurité

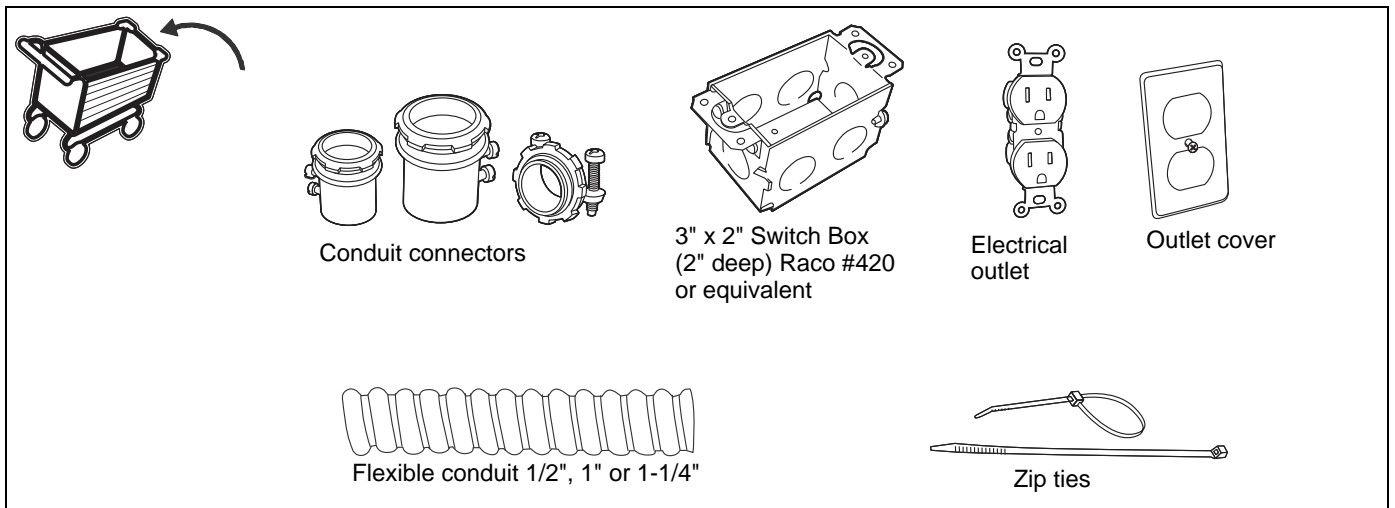
**TOOLS REQUIRED FOR INSTALLATION**



**PARTS**



**OPTIONAL PARTS PER CUSTOM CONFIGURATION (NOT INCLUDED)**



## INSTALLATION

### Installation Requirements

The MSP-CACMS491 has been designed to be mounted recessed into a suspended ceiling consisting of 2 ft x 2 ft ceiling tiles and secured by a WireVice System.

**NOTE:** The design of the MSP-CACMS491 does not require pre-measurement of the mount location other than choosing the tile placement of the enclosure.

### Preparing Framework

1. Remove one 2 ft x 2 ft tile from ceiling.
2. Move/reconfigure existing wires or conduit if obstructing installation location.

### Securing MSP-CACMS491 to Ceiling Structure

1. Examine ceiling structure (concrete, steel truss, or wood) above selected location to identify four support cable anchor locations. Each location should be approximately 15° outside of support holes in MSP-CACMS491 (A). Mark locations with pencil. (See Figure 1)

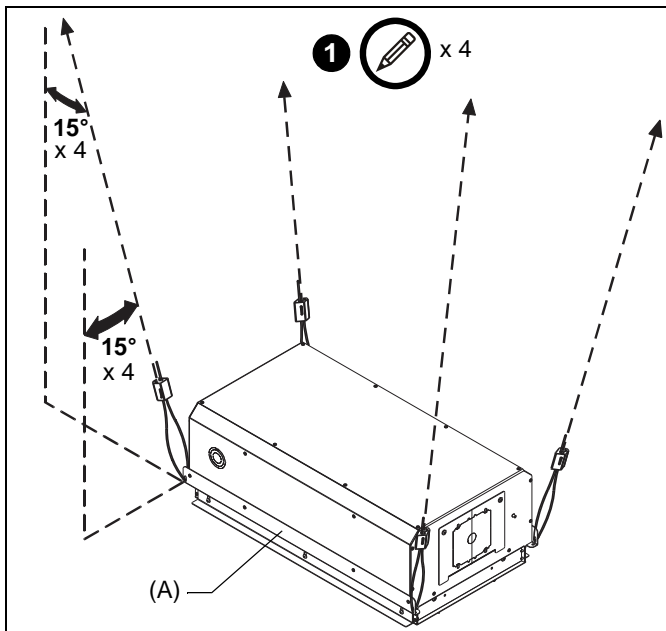


Figure 1

### Solid Concrete Ceiling Structure

**WARNING:** Anchors must be installed into structurally sound solid concrete with a minimum thickness of 1.75" (44.5mm) or greater. Installation into hollow concrete block, mortar, or concrete that exhibits cracking, spalling, or other defects may result in failure of anchor and serious personal injury or damage to equipment!

1. Drill 1/4" diameter x 1-3/8" deep pilot hole at each marked cable anchor support location. Ensure hole is at least 2-1/2" from nearest concrete edge. Remove debris from hole. (See Figure 2)

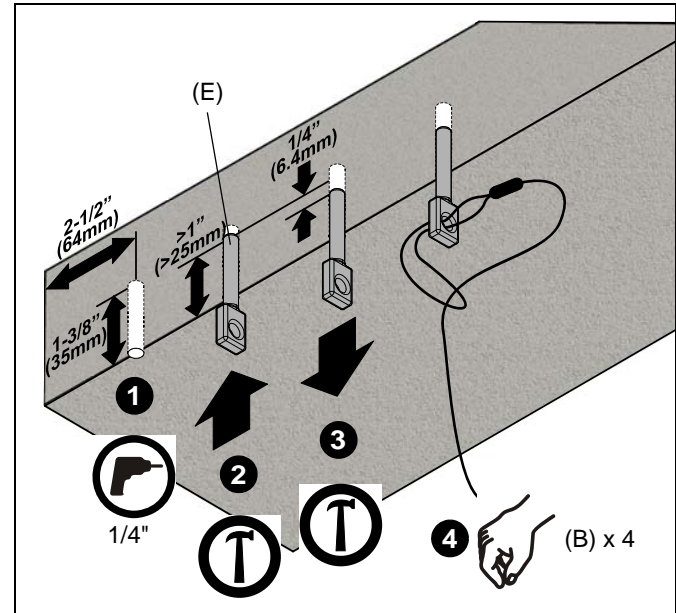


Figure 2

2. Tap anchor (E) into each hole to a depth of at least 1". (See Figure 2)



**WARNING:** Failure to properly set anchor may result in failure of anchor and serious personal injury or damage to equipment!

3. Using claw portion of hammer, set each anchor (E) by pulling it out of hole approximately 1/4". (See Figure 2)
4. Insert portion of manufactured loop on cable (B) through hole in anchor (E), and insert end of cable (B) through loop. Repeat for 3 remaining support locations. (See Figure 2)

### Steel Truss Ceiling Structure

1. Route end of cable (B) over truss at marked cable anchor support location and then through cable loop. Repeat for 3 remaining support locations. (See Figure 3)

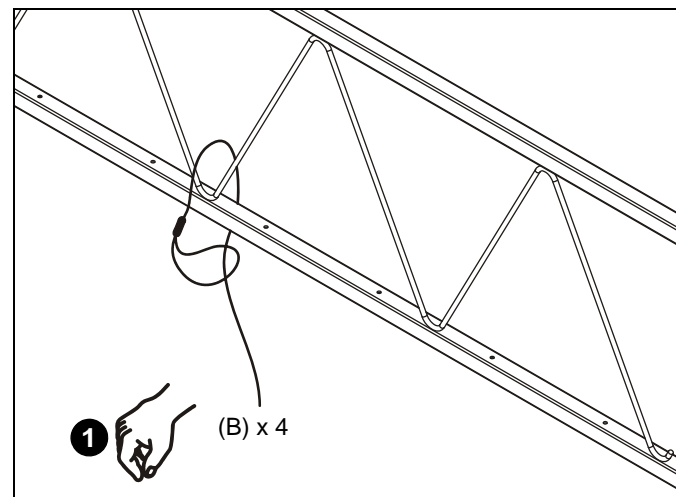


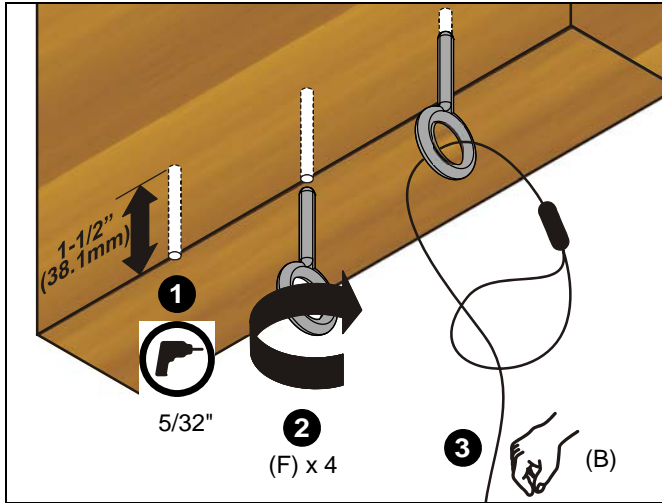
Figure 3

**Wood Ceiling Structure**



**WARNING:** Anchors must be installed into wood with a minimum thickness of 1-1/2" (38.1 mm) or greater.

1. Drill a 5/32" diameter x 1-1/2" deep pilot hole at each marked cable anchor support location. Ensure hole is at least 5/8" from nearest wood edge. Remove debris from hole. (See Figure 4)

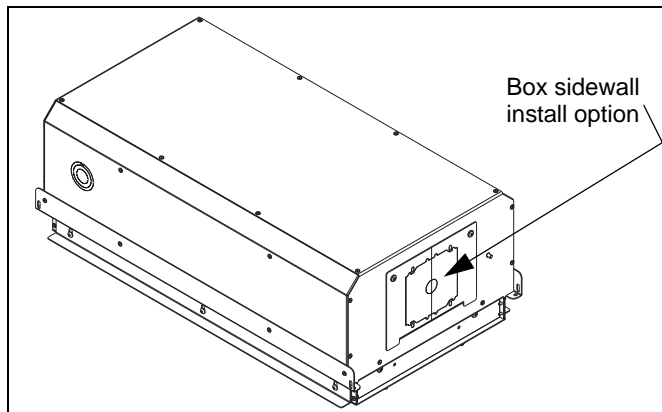


**Figure 4**

2. Fully thread eye lag (F) into each hole. (See Figure 4)
3. Route end of cable (B) through eye lag (F) and then through cable loop. Repeat for 3 remaining support locations. (See Figure 4)

**Installing Electrical Box and Outlets**

1. Determine desired location for installing electrical outlets within box.



**Figure 5**

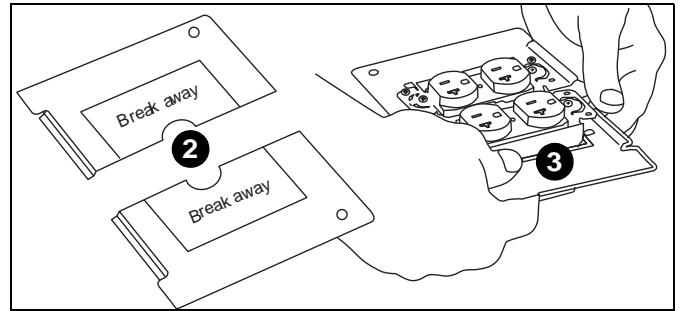
**Box Sidewall Electrical Install Option**

1. Remove two-piece electrical plate from box sidewall and save screws for re-attachment.



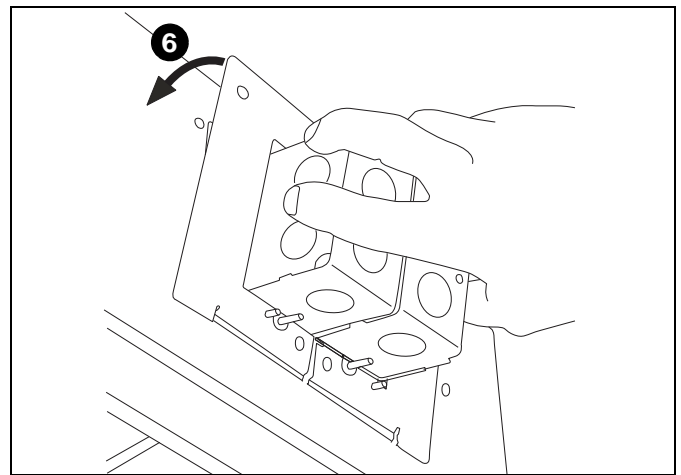
**CAUTION:** Injury may occur on sharp edges. Carefully discard the removable tabs.

2. Break away inner portions of plate halves. (See Figure 6)



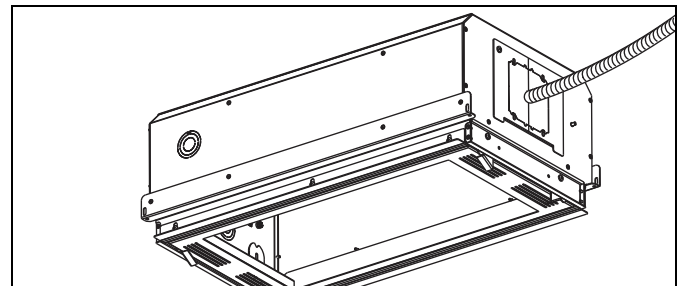
**Figure 6**

3. Attach a pair of outlets (not included) to an electrical box (not included).
4. Attach plate halves to outlet box configuration. (See Figure 7)
5. Insert tab on bottom edge of electrical plate into opening on side wall of box.
6. Rotate to flatten against box.
7. Attach plate to box by re-using the screws removed in Step 1. (See Figure 7)



**Figure 7**

**NOTE:** If outlet box configuration is attached to wiring/conduit prior to box attachment, remove two-piece electrical plate from box sidewall, feed configuration through large opening. Then re-attach two piece plate to close around conduit. (See Figure 8)



**Figure 8**

### Cleat adjustment for various tile heights

1. Loosen screws along side cleat.
2. Adjust, as needed, to accommodate tile height.
3. Tighten screws along side cleat. (See Figure )

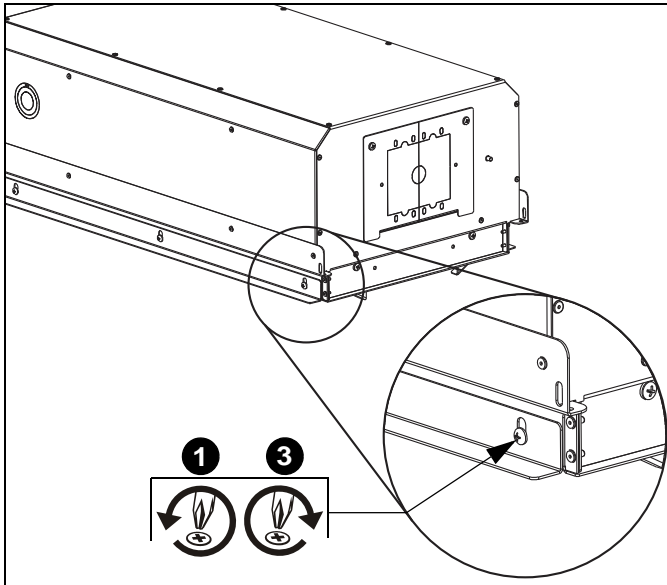


Figure 9

**NOTE:** The cleat may be removed completely to allow the MSP-CACMS491 to be mounted closer to the tile grid frame.

### Placing MSP-CACMS491 into Ceiling Structure

1. Carefully insert MSP-CACMS491 through opening. (See Figure 10)

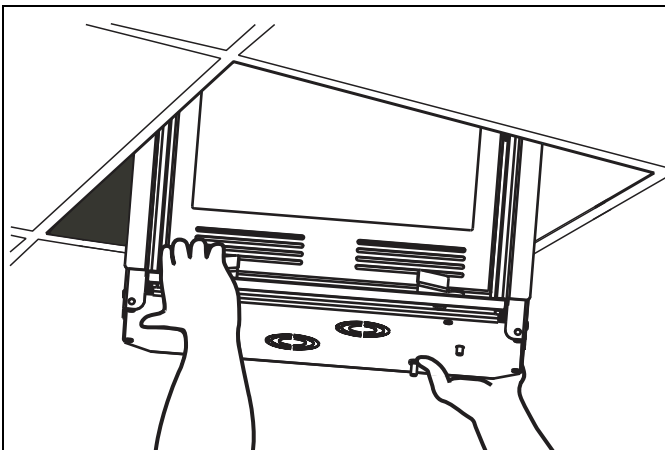


Figure 10

2. Rotate and drop box to gently rest into place onto drop ceiling framework. (See Figure 11)

### Installing Cable to MSP-CACMS491



**WARNING:** Improperly supporting MSP-CACMS491 with cable hanger system may lead to serious injury or death.

1. Remove adjacent ceiling tiles, as needed, to access cable attachment locations. (See Figure 11)

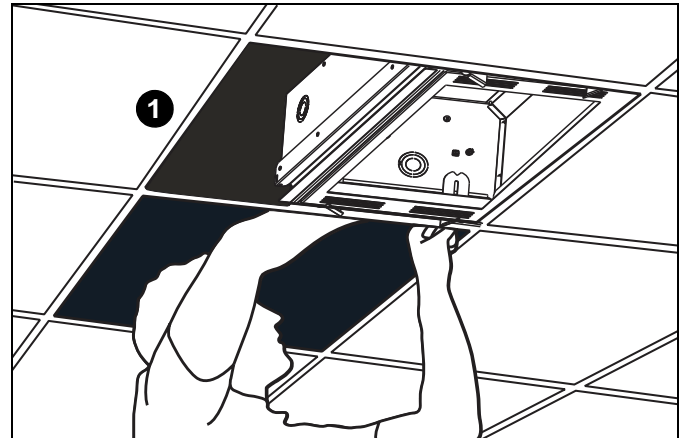


Figure 11

2. Thread each cable (B) completely through cable lock (C), corresponding hole in corner of MSP-CACMS491 (A), and completely through opposite side of cable lock. (See Figure 12)

**NOTE:** Cable lock (C) will allow cable to enter from only one direction per side, indicated by arrows on lock. Depress spring loaded pins on cable lock (C) to release cable tension.

3. Adjust cable tension until MSP-CACMS491 (A) is level, supported entirely and evenly by all four support cables, and **NOT** resting on ceiling tile framework.



**CAUTION:** Failure to properly tension cables (B) may result in damage to ceiling tile framework.

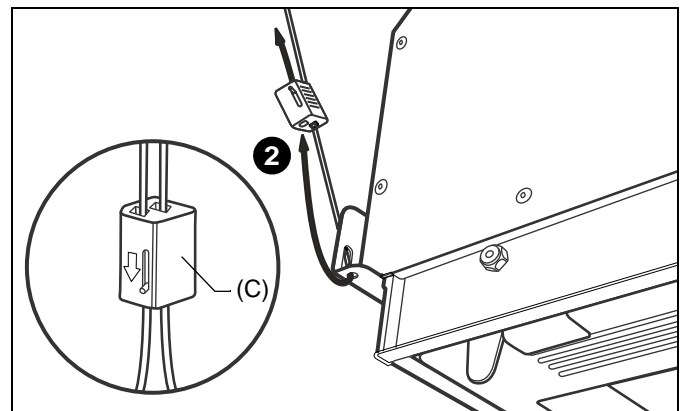
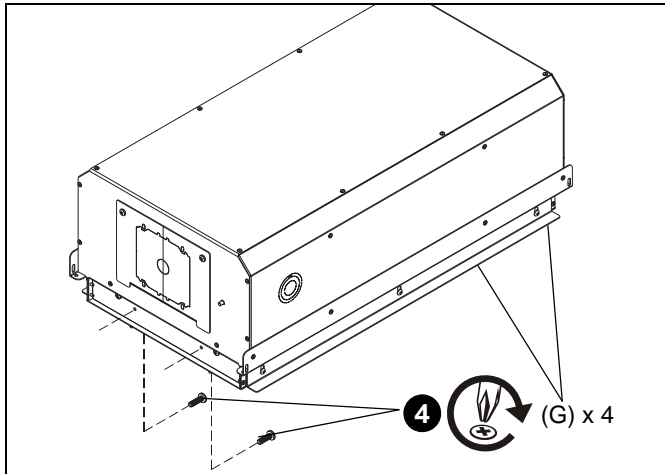


Figure 12



4. Secure the MSP-CACMS491 (A) in place using four 10-24 x 5/8" Phillips pan head tapping screws (G) through two holes at each end of MSP-CACMS491. (See Figure 13)
5. Tighten screws until secure against ceiling tile framework.

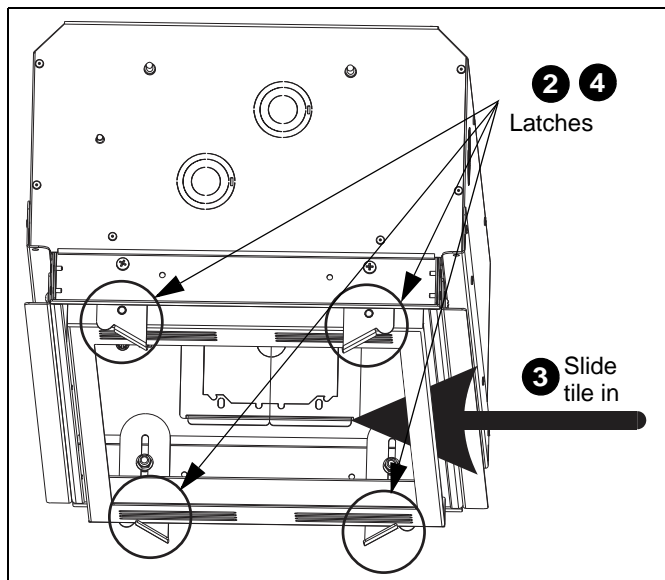


**Figure 13**

6. Use the thumb nuts (D) to attach component (not included) within the MSP-CACMS491.

**Finishing Installation Site**

1. Pre-cut a ceiling tile (19-1/8" x 10-3/8") to fit inside the drop panel framework.
2. Open four latches in door panel and drop panel down.
3. Slide tile (cut to size) into location on panel. (See Figure 14)
4. Push door panel up into place and rotate latches to lock into position.



**Figure 14**







Our Mounts. **Your Vision.**

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