



**USG UMBRAL™**  
DIRECT MOUNT

**INSTALLATION AND  
MAINTENANCE GUIDE**



IT'S YOUR WORLD. BUILD IT.®

# USG UMBRAL™

## DIRECT MOUNT PANELS

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Open plenum designs require flexibility. USG Umbral™ Direct Mount Panels can blend in or stand out as desired and do the heavy lifting of acoustic absorption alone or work in union with centerpiece specialty ceiling elements.

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### FOR MORE INFORMATION

#### PRODUCT INFORMATION

For the most up-to-date product information, visit [usg.com](http://usg.com) or [cgcinc.com](http://cgcinc.com)

#### CUSTOMER SERVICE

**USG:** 800 950-3839

**CGC:** 800 387-2690

#### TECHNICAL SERVICE

800 USG.4YOU (847-4968)

#### WEBSITES

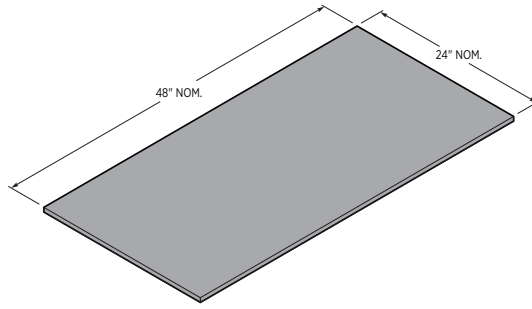
[usg.com](http://usg.com)

[cgcinc.com](http://cgcinc.com)

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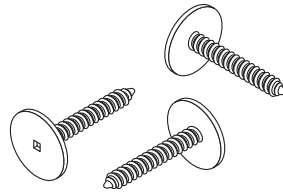
# SYSTEM OVERVIEW

## COMPONENTS



### Panel

Nominal 2'x4' square edge panel available with painted face & edges, or unpainted to be finished in the field. Mineral fiber acoustic performance with a laminated face for a smooth aesthetic.

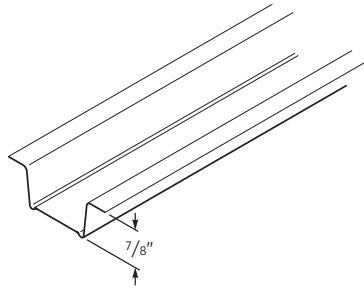


### Fastener

1/2" face, #2 square drive, 1-1/2" shaft.

Available from USG in kits of 100 pcs each. Flat White and Flat Black fasteners match panel finish. Field Finish to be painted with panel.

6 fasteners are required per 8 sq. ft. panel.



### Hat Channel

Recommended dimensions are 7/8" depth, 2-1/2" width, 25 gauge.

Available from others.

## DESIGN GUIDANCE

Umbral™ panels can be installed in a variety of layouts. Panels can abut each other, walls, ducting, and other deck features, or be spaced out in rows or individual panels. A typical installation will measure the empty deck space to be filled with full size panels and determine the spacing and layout.

**Do not mount other elements on or through panels.**

# INSTALLATION CONSIDERATIONS

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## STORAGE AND HANDLING

USG Umbral™ panels should be stored and handled in accordance with the conditions laid out in USG 30-Year Limited System Warranty Commercial Applications (SC2102). As a ClimaPlus™ performance product, the environmental limitations are 60-104°F (16-40°C) up to 95% RH.

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## FIELD PAINTING

Field Finish panels are primed and ready to be painted in field. Typical application will complete installation prior to painting the entire deck, including Umbral™ panels and fasteners. When using panels as a design element, paint panel face, edges, and fasteners prior to installation. Field Finish panels have been tested for acoustic performance following a single pass airless sprayed paint. Chosen paint and application rate may impact actual acoustic absorption.

Factory painted panels are intended to be installed as is with no field painting. If the deck will be sprayed after installation use Field Finish panels, even if the color is white or black. The acoustic performance of factory painted panels does not include further painting.

Paint should be applied with an airless sprayer. Panels are smooth and can be covered in one coat. If additional coats are needed for coverage, allow paint to dry completely before applying subsequent coats.

Use only enough paint to cover the panel. Excessive paint will result in reduced sound absorption.

### **Recommended Spread Rate**

**Wet Mils:** 3.5-5.0

**Dry Mils:** 1.5-2.0

**Coverage:** 340-450 sq. ft/gallon approximate  
(flat surface of panels, not including potential effects of other deck elements)

### **Application Condition**

**Temperature:** Paint should be applied when temperatures are between 60-104°F, at least 5°F above the dew point.

**Relative Humidity:** 75% maximum

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# DIRECT MOUNT INSTALLATION

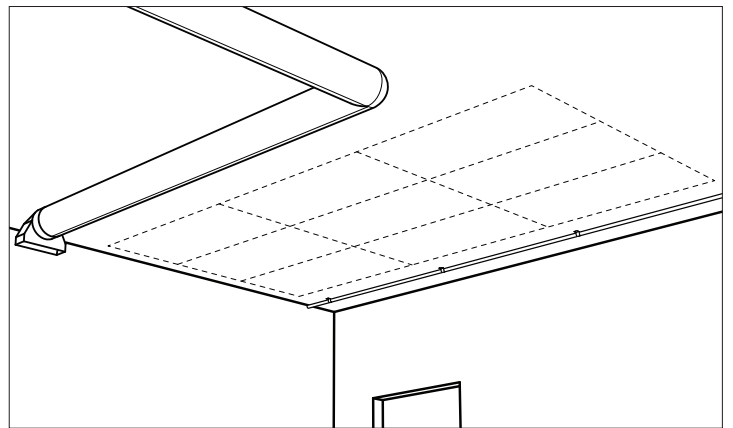
## INSTALLATION

### Determine Layout and Prep Deck

Measure available deck space and plan where panels will be installed.

Panels are nominal 2'x4' and can be installed in wide or narrow configuration. They can form rows, columns, be fully abutted or spaced evenly.

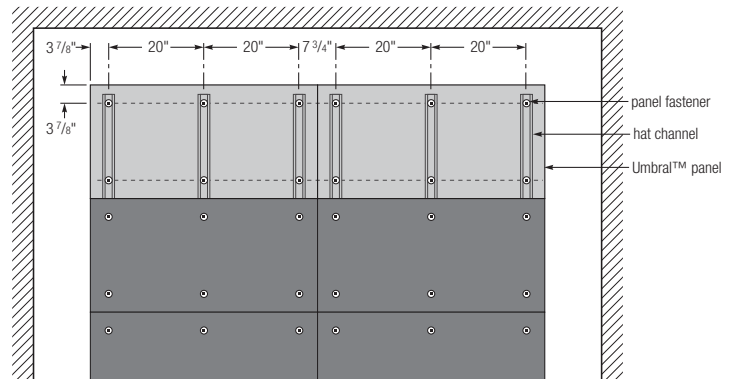
Take note of any spaces where lights, hanger wire, or other objects will hang from or be attached to the deck. Do not install objects through or on the panel. Design the layout such that anchors, bolts, wires, and posts for other deck elements sit between or outside of panels. Avoid penetrations.



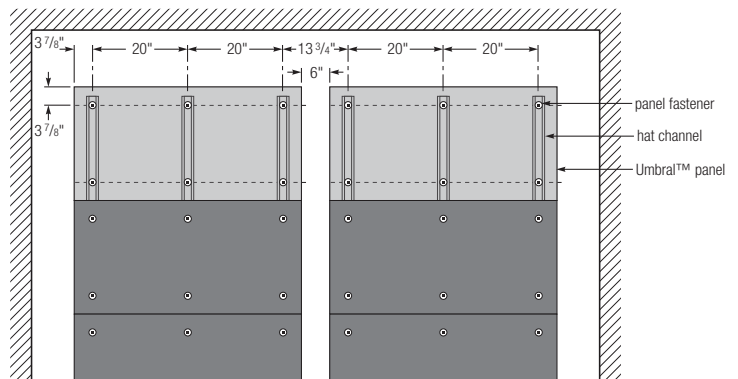
### Wide Layout

Install 3 rows of hat channel per column of panels, 20" o.c. Panel will overhang 3-7/8" from the center of the left and right hat channel.

**Adjacent panels:** space hat channel for neighboring panels 7-3/4" o.c.



**Spaced panels:** space hat channel for neighboring panels 7-3/4" + desired spacing o.c.



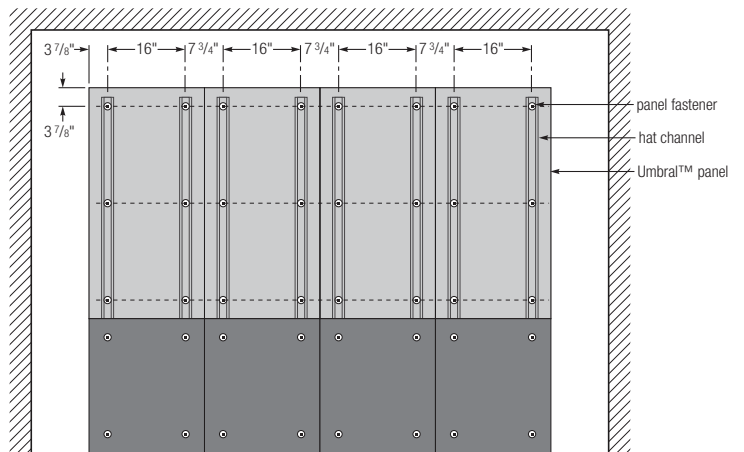
# DIRECT MOUNT INSTALLATION

## INSTALLATION

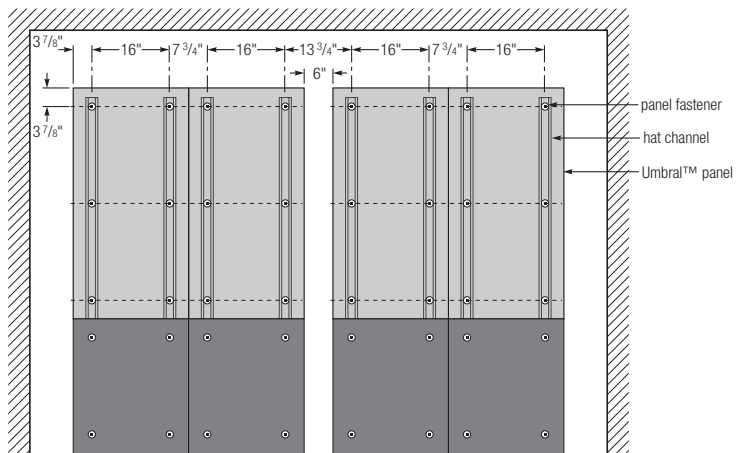
### Narrow Layout

Install 2 rows of hat channel per column of panels, 16" o.c. Panel will overhang 3-7/8" from the center of the hat channel.

**Adjacent panels:** space hat channel for neighboring panels 7-3/4" o.c.



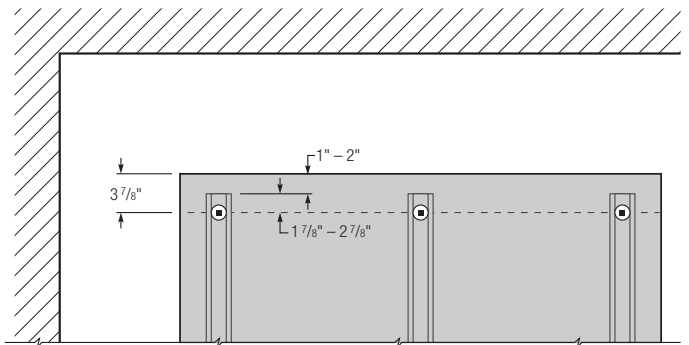
**Spaced panels:** space hat channel for neighboring panels 7-3/4" + desired spacing o.c.



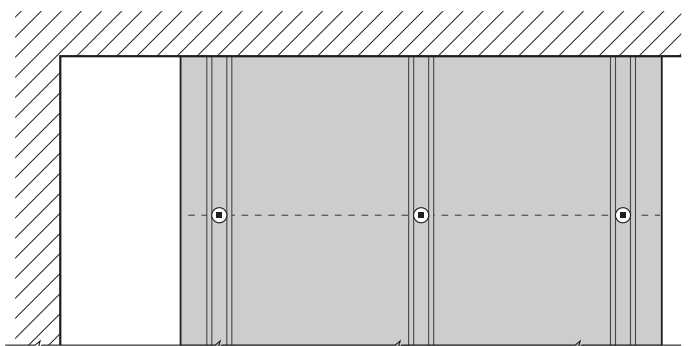
### Column Ends

When the end of a column does not abut a wall, duct, or other visually blocking element, the panel should overhang the hat channel.

**Hidden end:** panel and hat channel may be aligned at the end of each column for easier installation, or with panel overhanging the hat channel maximum 2" if desired.



**Visible end:** panel should overhang hat channel by a minimum 1", maximum 2" to block hat channel from view.



# DIRECT MOUNT INSTALLATION

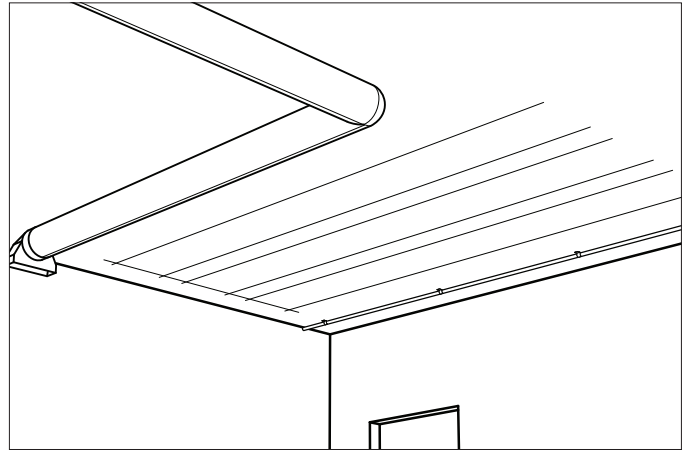
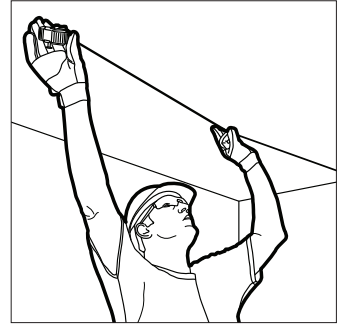
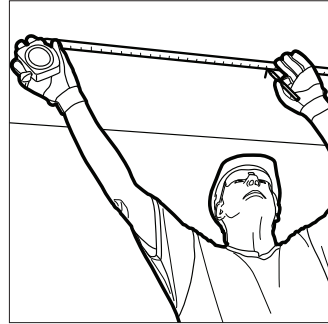
## INSTALLATION

### Hat Channel

Measure and mark hat channel spacing on the deck as determined by layout.

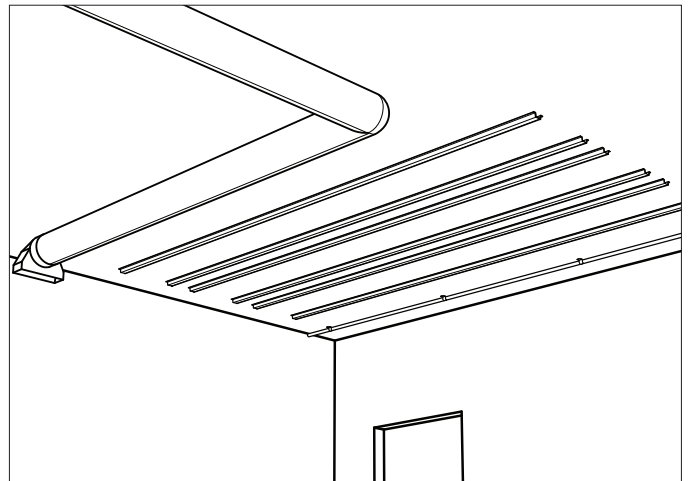
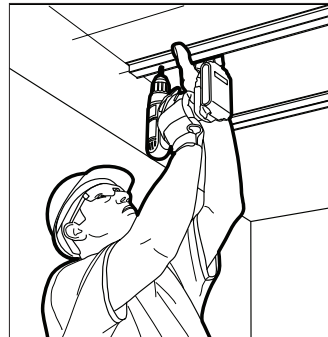
Use chalk to mark length of hat channel and starting line of column ends. Pick a washable or wipeable chalk if the deck will not be sprayed. Be sure to account for panel overhang if needed.

Optional: Use laser instead of chalk.



Fasten hat channel to deck. Use appropriate fastener and spacing based on deck material and hat channel.

Continue mounting hat channel for each marked row.

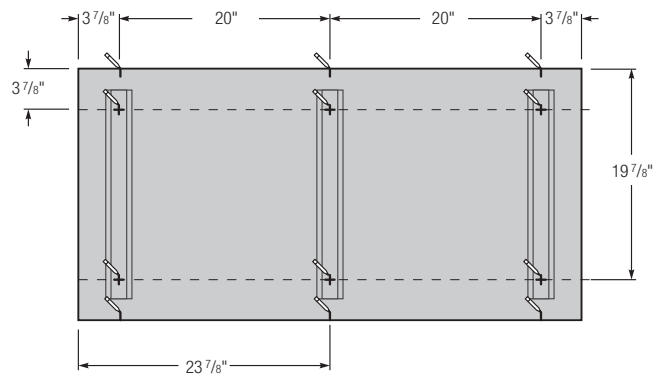
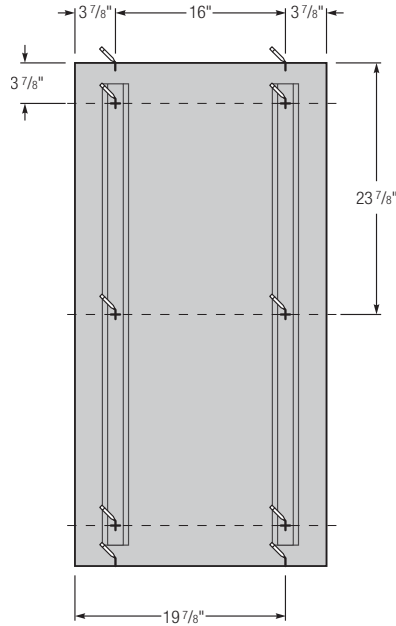
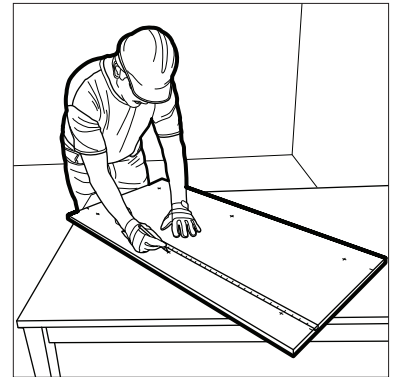


# DIRECT MOUNT INSTALLATION

## INSTALLATION

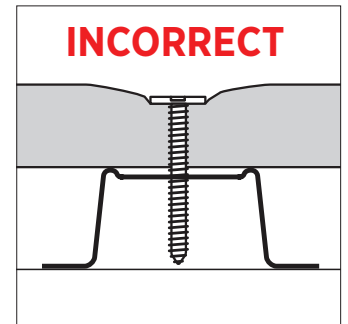
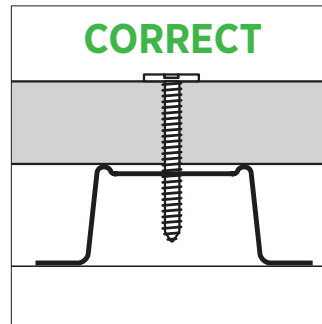
### Mount Panels

Recommended: Lightly mark panel edges at 3-7/8" from corner to mark center point of hat channel for easier alignment while panels are being held up. Additionally, mark fastener locations to create clean rows of fastener faces, which blend more seamlessly into the deck.



Begin at one corner of installation. Raise and place panel against hat channel, using straightedge, laser, or other method to ensure the panel is square.

Drive fastener into first corner until the fastener head is flush with panel face. Do not overdrive fastener into panel.





# DIRECT MOUNT INSTALLATION

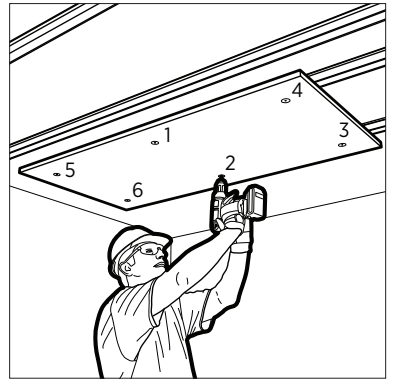
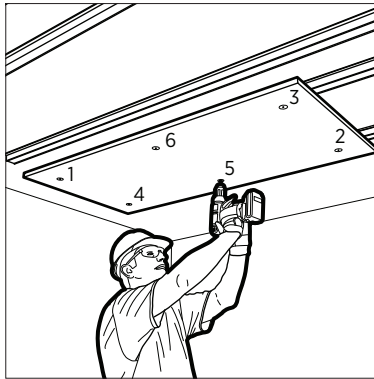
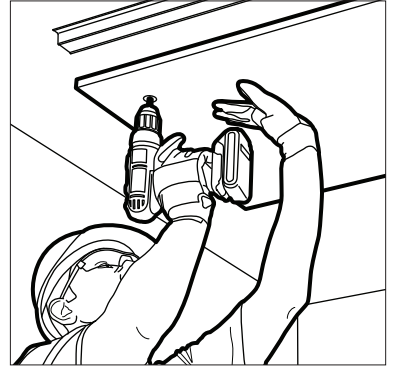
## INSTALLATION

### Mount Panels (Continued)

Move to the opposite corner, ensure the panel is square, and drive the second fastener. Finish driving the corners, then the two center fasteners.

### Optional

If installing solo, it may be easier to start with center fasteners. After driving the two center fasteners, the panel will hold to the hat channel with minimal support to reach the corners.



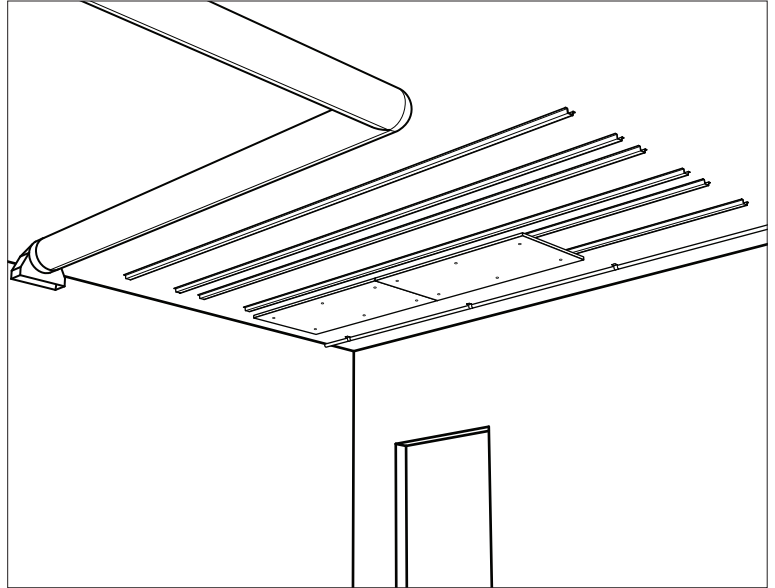
# DIRECT MOUNT INSTALLATION

## INSTALLATION

### Mount Panels (Continued)

Raise next panel and align with first panel. Use a straightedge, laser, or other tool to keep it square. Follow the same fastener installation order, either starting at corners or in center as preferred.

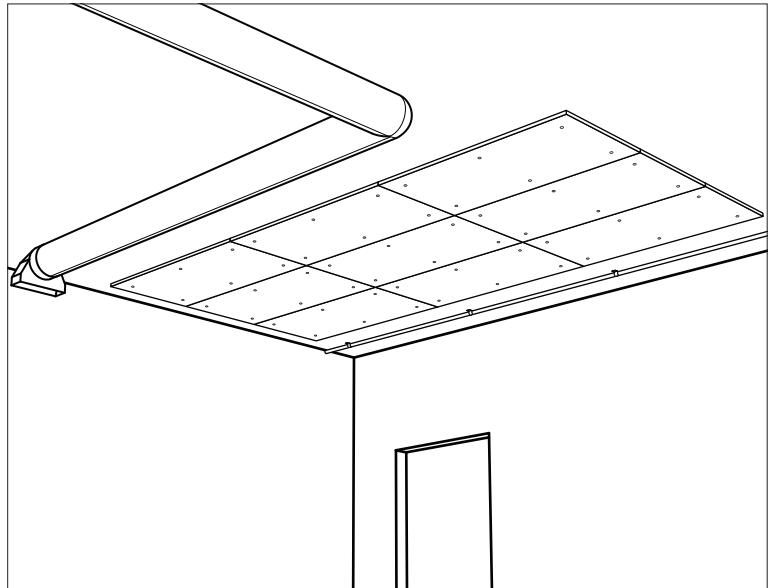
Fill in all rows and columns for the layout. Check that all panels remain aligned and firmly abutted or spaced evenly as the installation grows.



### Finished Installation

Factory painted panels are complete as-is.

Field Finish panels can be painted as soon as installation is complete. Be sure to paint panel edges along with the face.



# MAINTENANCE

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## FLAT WHITE AND FLAT BLACK

USG Umbral™ Direct Mount Panels in Flat White and Flat Black are Category D<sup>II</sup> in the USG Ceiling Panel Maintenance Guide (SC3236).

### **Cleaning**

Clean with a soft brush or vacuum gently.

Panel can be cleaned more thoroughly using a clean, white cloth with water or a mild detergent and wiping the panels surface.

### **Repainting**

Repainting of Flat White and Flat Black Umbral™ panels is allowed but not recommended for full acoustic performance. If deck will be sprayed after installation, Field Finish panels will provide a face that is easier to cover and offer more robust sound absorption performance after painting.

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## FIELD FINISH

Maintenance and cleaning of Field Finish Umbral™ panels is determined in part by the paint used.

### **Cleaning**

Clean with a soft brush or vacuum gently.

If further cleaning is needed, follow paint manufacturer recommendations and always check methods on an unobtrusive area of the installation. Start by using a clean, white cloth with water, or a dry chemical sponge (soot sponge) before using mild cleaners.

### **Repainting**

Previously painted Field Finish panels can be repainted. Acoustic absorption may be impacted as further coats of paint are added. Always follow painting guidance and avoid over spraying panel faces.



**Technical Service**  
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**Website**  
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**Samples/Literature E-mail**  
samplit@usg.com

**Customer Service**  
800 950.3839

**PRODUCT INFORMATION**

Data Page: IC307174  
See usg.com or cgcinc.com for the most up-to-date product information.

**INSTALLATION**

Must be installed in compliance with CISCA and standard industry practices, within all applicable code requirements. Alternative assemblies and installation methods may be utilized when approved by the authority having jurisdiction. USG recommends checking with the authority having jurisdiction prior to designing and installing a ceiling system.

**CODE COMPLIANCE**

The information presented is correct to the best of our knowledge at the date of issuance. Because codes continue to evolve, check with a local official prior to designing and installing a ceiling system. Other restrictions and exemptions may apply.

**NOTICE**

We shall not be liable for incidental and consequential damages, directly or indirectly sustained, nor for any loss caused by application of these goods not in accordance with current printed instructions or for other than the intended use. Our liability is expressly limited to replacement of defective goods. Any claim shall be deemed waived unless made in writing to us within thirty (30) days from date it was or reasonably should have been discovered.

**SAFETY FIRST!**

Follow good safety/industrial hygiene practices during installation. Wear appropriate personal protective equipment. Read SDS and literature before specification and installation.

**WARRANTY**

See USG Ceilings Commercial Application Warranty (SC2102) for additional details. For Canadian product needs, please contact your local sales representative.

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