

# INVISACOUSTICS™ BASICS Direct-Attach Ceiling Panels

## Assembly and Installation Instructions

### CEILING PANELS STANDARD ITEMS:

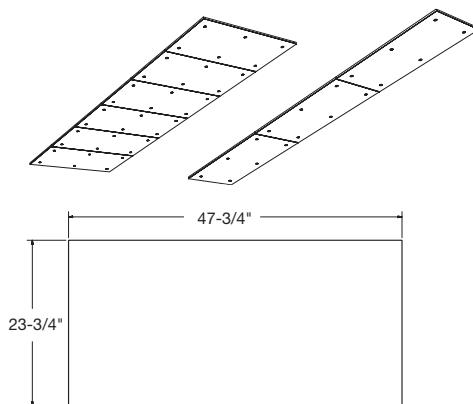
Item No.	Item Name	Included w/panels	Sold by the:	SF per Ctn
1212FP	23-3/4 x 47-3/4 x 3/4" No Finish	–	Ctn	48
1212BL	23-3/4 x 47-3/4 x 3/4" Black	–	Ctn	48
1212WH	23-3/4 x 47-3/4 x 3/4" White	–	Ctn	48

### INSTALLATION ACCESSORIES:

Item No.	Item Name	Included w/panels	Sold by the:	Pcs/Ctn
--	Sharp Point Screw All-in-one self stop fastener 1-1/4" x 1"	No	Ctn	100 pcs
1216	Mill Finish			
1216BL	Black Finish			
1216WH	White Finish			

### SUSPENSION SYSTEM COMPONENTS:

Item No.	Item Name	Included w/panels	Sold by the:	Pcs/Ctn
HD8906	12' HD Drywall Main Beam	No	Ctn	20 pcs
QSUTC	QuickStix Uptight Clip	No	Ctn	150 pcs
--	Steel Furring Channel (alternate suspension)	No	Refer to manufacturer	
--	Wood Furring (alternate suspension)	No	Refer to manufacturer	



### 1. GENERAL

#### 1.1 Product Description

InvisAcoustics™ Basics direct-attach panels for ceilings are 3/4" thick, available in nominal size of 2' x 4', and offer acoustical absorption when installed in an exposed structure environment. Field paintable panels have square edges on all four sides. On factory painted panels the long edges of the panel are square and the short edges are reverse regular.

Standard panels are available in Black, White, and a scrimmed panel with no finish. This panel can then be painted post installation to directly match the deck on which it's being installed. InvisAcoustics Basics panels are installed using the all-in-one fastener on Armstrong® Drywall Grid or furring (wood or metal).

#### 1.2 Safety

During the installation be certain that the work site is well ventilated, and avoid breathing dust. If high dust levels are anticipated during installation such as with the use of power tools, use appropriate NIOSH designated dust respirator. All power cutting tools must be equipped with dust collectors. Avoid contact with skin or eyes. Wear long-sleeve, loose-fitting clothes, gloves, and eye protection.

#### 1.3 Warranty

Failure to follow the Armstrong Ceilings recommended installation instructions in effect at the time of installation will void the product and/or ceiling system warranty.

#### 1.4 Surface Finish

InvisAcoustics™ Basics panels (Black and White only) feature a finished latex paint on the face and panel edges.

#### 1.5 Storage & Handling

The ceiling panels shall be stored in a dry interior location and shall remain in cartons prior to installation to avoid damage. The cartons shall be stored in a flat position. Proper care should be taken when handling to avoid damage or soiling.

#### 1.6 Site Conditions

Building areas to receive ceilings shall be free of construction dust and debris.

InvisAcoustics™ Basics panels with factory paint finish feature HumiGuard® Plus performance and can be installed in conditions between 32° F (0° C) and 120° F (49° C) and in

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spaces before the building is enclosed where HVAC systems are cycled or not operating.

InvisAcoustics™ Basics field paintable panels have standard humidity resistance and should be installed in areas where the building is enclosed and the HVAC is continuously functioning.

These products are not recommended for exterior applications where standing water is present, or where moisture will come into direct contact with the ceiling.

### 1.7 HVAC Design & Operation, Temperature & Humidity Control

It is also necessary for the area to be enclosed and for the HVAC systems to be functioning and in continuous operations for the life of the product. All wet work (plastering, concrete, etc.) must be complete and dry. Standard 3/4" InvisAcoustics™ Basics panels cannot be used in exterior applications.

### 1.8 Colors

Standard InvisAcoustics™ Basics panels are available in black, white, and no finish. Panels with no finish can be field-painted.

### 1.9 Cleaning/Maintenance

Use a clean, dry, soft, white cloth to wipe off any dust or fingerprints.

## 2. DESIGN AND INSTALLATION CONSIDERATIONS

### 2.1 Directionality

InvisAcoustics™ Basics panels are designed to be installed in single panel width rows with at least 6" of space between adjacent rows. The panels can be butted edge-to-edge within each row. Rows can have panels join short edge-to-short edge (23-3/4" wide) or long edge-to-long edge (47-3/4" wide). Due to the directional finish of the product, Armstrong Ceilings does not recommend butting short edges to long edges.

### 2.2 Edges

Exposed edges of finished panels are factory painted and can be butted edge-to-edge. Panels with no finish (item #1212FP) are intended for field finish painting. See Section 5.8 for guidance on field painting.

Butting short edge to short edge of factory painted panels will result in the visual of a notch that is 0.45" x 0.385".

### 2.3 Exterior installations

InvisAcoustics™ Basics panels are not intended for exterior use.

### 2.4 Direct Attachment

InvisAcoustics™ Basics panels are mechanically fastened to Armstrong® Drywall Grid or furring (metal or wood) using the all-in-one self-stop fastener. These panels and fasteners can only be installed in ceiling applications up to a 20° slope (no walls). See Section 5 for panel attachment details.

### 2.5 Plenum

Design limitations require relatively clear deck areas and are not suitable for plenum spaces with services or obstructions that interrupt the attachment surface.

### 2.6 Fire and Sprinklers

InvisAcoustics™ Basics panels, as with other architectural features located at the ceiling, may obstruct or skew the planned fire sprinkler water distribution pattern, or possibly delay or accelerate the activation of the sprinkler or fire

detection systems by channeling heat from a fire either toward or away from the device. Please consult a fire protection engineer, NFPA 13, and the local codes for guidance where automatic fire detection and suppression systems are present.

### 2.7 Attachment to Deck

Overall system weight will combine the panels and the suspension system.

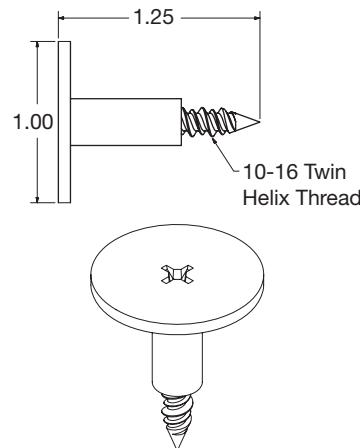
- Panels weigh 1lb/SF
- HD8906 Drywall Grid .25 lb/SF
- Furring metal or wood (refer to manufacturer)

Fastener connections of the suspension system to building structure are specified by the contractor and must follow the manufacturer's instructions and reference code.

## 3. INVISACOUSTICS™ BASICS ACCESSORIES

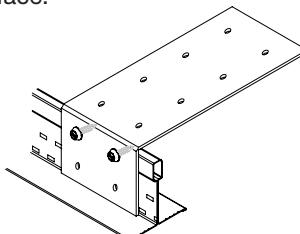
### 3.1 Fasteners

Armstrong Ceiling Solutions provides installers with an all-in-one self-stop fastener for InvisAcoustics Basics panel attachment. This fastener is designed to stop as soon as the collar comes in contact with furring, thereby allowing the head of the screw to rest snug against the face of the panel without the risk of countersinking. The same fastener is used for Armstrong® Drywall Grid or 20- to 25-gauge furring channel. The screw's oversized head acts as a built-in washer once properly installed. System performance is based on using the appropriate fastener at the correct spacing. Armstrong Ceilings does not warrant the use of any other type of fastener for InvisAcoustics™ Basics installations.



### 3.2 QSUTC (QuickStix Uptight Clip)

Installations using Armstrong® Drywall Grid require the QSUTC for attachment to deck. The minimum drop from the deck to the face of grid when using the QSUTC is 1-3/4" and can adjust up to 5-1/2" to account for unevenness in the deck surface.



- Each QSUTC requires secure attachment to the deck (specified by contractor based on deck material) and two framing screw attachments from the clip to the grid
- Each 12' main runner requires 3 QSUTC attachments to deck spaced no further than 6' OC
- All drywall mains must have a QSUTC attachment within 12" of each end and within 3" of the fire expansion notch

## 4. SUSPENSION SYSTEM

### 4.1 Armstrong® Drywall Grid Recommendations

Installations using Armstrong® Drywall Grid will require:

- 12' Drywall Grid mains (HD8906)
- Uptight Clips (QSUTC)

The drywall grid spacing layout will be based on the panel orientation. See section 4.3 for layout information.

Attachments of the drywall grid to the deck are made with the QSUTC Uptight Clip. See section 3.2 for attachment rules and spacing.

### 4.2 Suspension System Overview

InvisAcoustics™ Basics panels are required to be screw-attached to Armstrong® Drywall Grid or furring, and are not intended for an A-mount installation. The use of wood or metal (20- to 25-gauge) furring is required for panel attachment and also helps in increasing the product's overall NRC performance. The panels are installed in rows with the short edges or the long edges butted up against each other, or for stand alone acoustical treatment.

### 4.3 Furring Recommendations

Furring for InvisAcoustics™ Basics panels can be either wood or metal. For steel channel/hat channel, Armstrong Ceiling Solutions recommends 25-gauge 7/8" furring, however, ranges of 20- to 25-gauge metal furring can be used. For wood furring, 3/4" x 1-1/2" or 3/4" x 2-1/2" is recommended.

Furring layout will be based on panel orientation. See Section 4.4 for additional furring layout information.

The furring must be attached to the structure in a method that supports the full weight of the panels. Armstrong Ceiling Solutions does not provide guidance regarding the attachment of furring to structure and is therefore not liable for any damage or installation complications that may occur from an improper installation of furring. For guidance on the attachment of the furring to structure please refer to the manufacturer's instructions.

### 4.4 Drywall Grid or Furring Layout

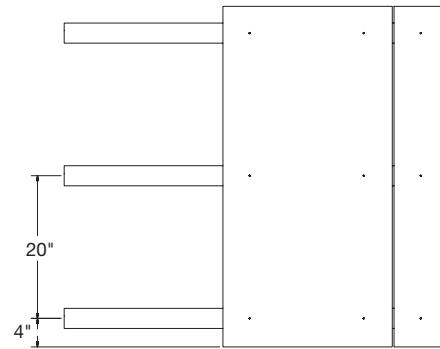
The layout of the suspension is dependent upon the desired panel layout. Panels are installed in single panel width rows with the edges butting together long edge-to-long edge (nominally 4' wide) or short edge-to-short edge (nominally 2' wide).

**NOTE:** The spacing and straightness of structural components in the deck may vary so it is recommended to use an alignment method that can operate independently from these components (e.g. laser, chalk line). The drywall grid or furring should be leveled to within 1/4" over 10' (ASTM C636) to ensure a satisfactory visual.

Make sure at least 6" of clearance is given between the outside edges of the suspension and the nearest possible obstruction as the panels, when installed, will extend 4" beyond the edge of the suspension and may interfere with obstructions if sufficient clearance is not given.

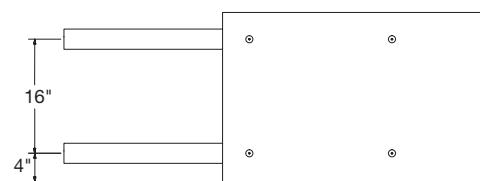
### 4' Wide Rows

Rows with panels butting long edge-to-long edge require three rows of suspension. Suspension is installed perpendicular to the length of the panels. Suspension must be spaced 4" On Center (O.C.) in from the desired short edges of the panels, with a center row of suspension installed at the midpoint of the panels, leaving 20" O.C. spacing between the three rows. Where the rows start and end, the suspension should be cut 1"- 2" short of the desired panel edges to avoid visibility of the suspension.



### 2' Wide Rows

Rows with panels butting short edge-to-short edge require two rows of suspension. Suspension is installed parallel to the length of the panels. Suspension must be spaced 4" O.C. in from the desired long edges of the panels, leaving 16" O.C. spacing between the two rows. Where the rows start and end, the suspension should be cut 1"- 2" short of the desired panel edges to avoid visibility of the suspension.



## 5. PANELS

### 5.1 First Panel and Alignment

InvisAcoustics™ Basics panels are installed in single panel width rows, butted against each other with no reveal. Because panel edges are butted against each other, the alignment of the first panel determines the straightness of the rest of the panels within the row. Alignment and even spacing in relation to the suspension is critical. The spacing and straightness of structural components in the deck may vary so it is recommended to use an alignment method that can operate independently from these components (e.g. laser, chalk line).

## 5.2 Panel Attachment

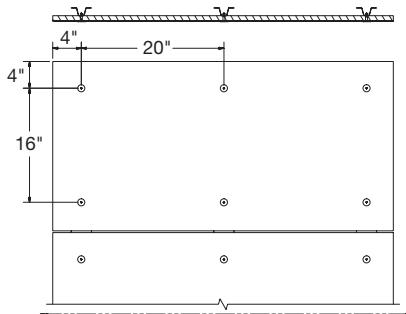
For all panel layouts, the same spacing and fastener attachment rules apply:

- Each full-size panel requires six Armstrong® all-in-one self-stop fasteners
- Exact fastener spacing is based on alignment with suspension but should target 20" O.C. between fasteners along the length of the panel and 16" O.C. between fasteners across the width of the panel
- Each fastener is placed roughly 4" in from the nearest panel edge (between 3" and 5" is acceptable)
- There must be at least 6" of space between panel ends of separate rows

## 5.3 Panel Attachment – 4' Wide Rows

If panels are being butted up long edge-to-long edge, three rows of suspension attached to the deck 20" (O.C.) is required. This arrangement creates the least amount of net sag, and alternative spacing of the suspension is not recommended.

Once properly aligned, use Armstrong Ceiling Solutions all-in-one self-stop fastener to attach the first panel to suspension. The proper installation of the fasteners results in an installation where the heads of the fasteners are tight against the panel. Each panel requires six screws. Each screw is to be placed roughly 4" inwards from the closest edge. (A range of 3" to 5" is acceptable.)

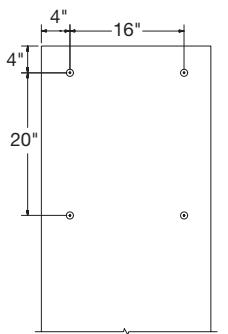


## 5.4 Panel Attachment – 2' Wide Rows

If panels are being butted up short edge-to-short edge, two rows of suspension attached to the deck 16" O.C. is required. This arrangement creates the least amount of net sag, and alternative spacing of the suspension is not recommended.

Once properly aligned, use Armstrong Ceiling Solutions all-in-one self-stop fasteners to attach the first panel to suspension. The proper installation of the fasteners results in an installation where the heads of the fasteners are tight against the panel.

Each panel requires six screws. Each fastener is to be placed 4" inwards from the closest edge (a range of 3" and 5" is acceptable).



## 5.5 Panel Attachment – Stand Alone or Alternate Panel Spacing

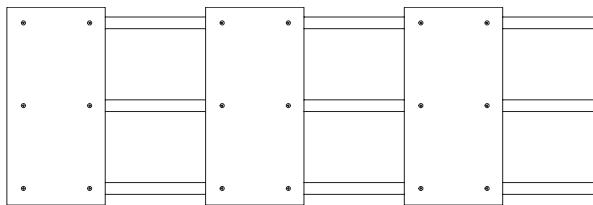
InvisAcoustics™ Basics panels can also be used for spot acoustical treatment. This type of installation would be similar to those described in Sections 5.1 and 5.2 but with the rows in short sections (see example drawings).

Additionally, spacing between panel edges within a row can vary, but will require individual alignment of each panel or the use of a temporary spacer before attachment.

For all panel layouts, the same spacing and fastener attachment rules apply:

- Each full-size panel requires six Armstrong Ceiling Solutions all-in-one self-stop fasteners
- Exact fastener spacing is based on alignment with furring but should target 20" O.C. between fasteners along the length of the panel and 16" O.C. between fasteners across the width of the panel
- Each fastener is placed roughly 4" in from panel edges (between 3" and 5" is acceptable)
- For parallel rows, there must be at least 6" of space between panel ends of separate rows

Make sure at least 6" of clearance is given between the outside edge of the last suspension and the nearest possible obstruction as the panels, when installed, will extend 4" beyond the edge of the suspension and may interfere with obstructions if sufficient clearance is not given.



## 5.6 Field Cutting

InvisAcoustics™ Basics panels can be cut to length, as long as the panels follow the same attachment rules, and the panels are supported within 4" of the edges.

If the field-cut edge is placed against a factory painted edge then the bottom of the cut edge should be painted.

## 5.7 Touch-up Paint Recommendations

All field-cut edges should be colored to match the factory finish.

## 5.8 Field Painting

Field Painting Specification Recommendation:

Sherwin-Williams® Product – Waterborne Acrylic Dryfall (B42W1) 50 GAL. Drums MPI# 118 (or substitute Alkali-based, flat latex paints with similar properties)

Recommended Spread Rate per Coat –

Wet Mils: 3.5 – 5.0

Dry Mils: 1.5 – 2.0

Coverage: 336-450 sq. ft./gallon approximate  
(based on flat surface)

\* If necessary, cross spray at a right angle

Armstrong Ceiling Solutions recommends post painting once the install is complete. Do not paint panels prior to installation in the ceiling as damage/markings during installation may be visible once installed. Field painting may alter acoustical and fire performance.

## **Surface Preparation**

Surface must be clean, dry, and in sound condition.  
Remove all oil, dirt, grease, and other foreign material  
to ensure adequate adhesion.

## **Application Conditions and Equipment**

Consult paint manufacturer.

## **6. SPECIAL INSTALLATION CONSIDERATIONS**

### **6.1 Sloped Ceilings**

Sloped ceiling installations (up to 20°) should follow standard installations as outlined previously.

### **6.2 Pools/Auditoriums**

3/4" InvisAcoustics™ Basics direct-attach ceiling panels are not to be used in pool areas or other high-humidity areas where standing water is present.

### **6.3 Exterior Installation**

3/4" thick standard InvisAcoustics™ Basics panels are not intended for use in exterior applications.

## **7. SEISMIC INSTALLATIONS**

Seismic installations of 3/4" thick InvisAcoustics™ Basics panels are to be handled per building code.

## **MORE INFORMATION**

For more information, or for an Armstrong Ceilings representative, call 1 877 276 7876.

For complete technical information, detail drawings, CAD design assistance, installation information, and many other technical services, call TechLine customer support at 1 877 276 7876 or FAX 1 800 572 TECH.

For the latest product selection and specification data, visit [armstrongceilings.com/invisacoustics](http://armstrongceilings.com/invisacoustics).

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