



# OVERCAST

INNOVATIONS

## INSTALLATION OPERATIONS & MAINTENANCE MANUAL

Cloud Integrated Ceiling  
Systems Series of Products



**OVERCAST**  
INNOVATIONS



210 South Hudson St.  
Seattle, WA 98143



[overcastinnovations.com](http://overcastinnovations.com)  
[info@overcastinnovations.com](mailto:info@overcastinnovations.com)



800.478.9104

# Safety Guidelines and General Information

## Safety and Intended Usage

This document is intended for use by approved installation and operating/service personnel. It is expected that these individuals possess independent training that will enable them to perform their assigned duties properly and safely. It is essential that, prior to performing any task on this equipment, the individual working with Overcast Innovations Integrated Ceiling Systems (Overcast Systems) shall have read and understood the product labels, this document, and any reference materials. The individual shall also be familiar with and comply with all applicable jobsite, industry, and governmental standards and regulations pertaining to installation of the Cloud Integrated Ceiling Systems (Cloud).

Incorrect use of product including installation and operation by untrained or unapproved personnel, unauthorized modifications to the unit or installation methods, and failure to follow instructions can result in damage to unit and/or property as well as risk of personal injury. It is the responsibility of the installer to follow jobsite safety procedures for all lifting and rigging operations during installation of Cloud Integrated Ceiling Systems.

Do not operate or install product if it appears damaged or has missing or broken parts. Consult with the manufacture prior to fully unboxing or commencing work if the product shows signs of damage.

All Overcast Systems should be stored in a manner that prevents damage to both product and packaging to include damage from being crushed, environmental conditions, foot and vehicle traffic, and excessive handling.

General

The Overcast Integrated Ceiling Systems are manufactured to the highest design and manufacturing standards to ensure high performance, reliability, and compliance to the Authority Having Jurisdiction (AHJ) regulations where applicable.

This manual covers Overcast Integrated Cloud Ceiling System products and associated components installed within and to the product. It is important to obtain and reference project specific documents for information on building system connections to the Cloud.

Associated literature outside of this document may be referenced for use. The referenced documents should be examined for applicability to the project specified product before proceeding with work as described in the section referring to the external document. Such applicability can include the presence of selected individual components, Cloud configurations, system connection and requirement data, and external manufacturer documentation for included components. Individual component/device information such as product specifications and equipment manufacturer installation documents are located in the Project Engineered Submittal Package or obtained by contacting Overcast Innovations (Overcast) or the device manufacturer.

This manual and any other document supplied with the Overcast Integrated Ceiling System are the property of Overcast Innovations, which reserve all rights. This manual may not be reproduced, in whole or in part, without prior written authorization from an Overcast Innovations representative.

For any questions, or to request additional information, contact Overcast Innovations:

**Overcast Innovations**

210 S Hudson St, Seattle, WA 98134

Email: [Engineering@Overcastinnovations.com](mailto:Engineering@Overcastinnovations.com)

Phone: 1(833) 214 - 2949

# Table of Contents

<b>Safety Guidelines and General Information</b>	<b>2</b>
Safety & Intended Usage	2
General	3
<b>Table of Contents</b>	<b>4</b>
Associated Literature	5
List of Figures	5
Warranty	6
<b>Product Overview</b>	<b>7</b>
Cloud Integrated Ceiling System	7
Cloud Identification	10
<b>Receiving a Cloud Product</b>	<b>13</b>
Initial Delivery Inspection	13
Product Storage	15
<b>Installation &amp; Mounting Instructions</b>	<b>16</b>
Installation Sequencing	16
Tools & Equipment List	17
Preparing for Installation	19
Cloud Anchor Points	19
Product Installation	20
System Connections to Cloud	22
Fit & Finish Guidance	23
Installation Checklist	24
<b>Operations &amp; Maintenance</b>	<b>25</b>
<b>Service &amp; Repair</b>	<b>26</b>

## Associated Literature

DESCRIPTION	FORM / DOCUMENT
PRODUCT WARRANTY	OVERCAST STANDARD WARRANTY DOCUMENT
INSTALLATION CHECKLIST	CLOUD INTEGRATED CEILING SYSTEM INSTALLATION CHECKLIST
CLOUD SCHEDULE	PROJECT ENGINEERED SUBMITTAL PACKAGE
CLOUD LAYOUT PLAN	PROJECT ENGINEERED SUBMITTAL PACKAGE
HANGER LAYOUT PLAN	PROJECT ENGINEERED SUBMITTAL PACKAGE
LOOSE PARTS KIT ASSEMBLY (FIELD INSTALLATION)	PROJECT ENGINEERED SUBMITTAL PACKAGE
PRODUCT GENERAL ARRANGEMENTS (MAX CONFIG)	PROJECT ENGINEERED SUBMITTAL PACKAGE
WIRING LAYOUT GUIDE	PROJECT ENGINEERED SUBMITTAL PACKAGE
SYSTEMS INTERFACE DRAWING	PROJECT ENGINEERED SUBMITTAL PACKAGE

## List of Figures

Figure 1 - Example Cloud Arrangement	7
Figure 2 - Example Device Layout, Top of Cloud	8
Figure 3 - Example Device Layout, Bottom (face) of Cloud	8
Figure 4 - Cloud Exploded Assembly Overview	9
Figure 5 – Cloud Naming Convention & Drawing Tags	10
Figure 6 - Cloud Product Palletized Bill of Delivery	11
Figure 7 - Example Cloud Identification Placard	11
Figure 8 - Typical Cloud Placard Location	12
Figure 9 – Example Product Shock Indicator	13
Figure 10 – Product in Clam Shell Packaging with Inserts	14
Figure 11 - Palletized Product	15
Figure 12 - Typical Cloud Installation Sequence	16
Figure 13 – Recommended Material Lift	17
Figure 14 - Cloud Product Prepared for Installation	20
Figure 15 - Lifting Cloud into Place	20
Figure 16 - Cloud Hanger Bracket	20
Figure 17 - Securing and Fastening Integrated Ceiling System	21
Figure 18 - Removing Bottom Clam Shell	21
Figure 19 - System Connections to Cloud	22
Figure 20 - Cloud Alignment, Elevation	23
Figure 21 - Cloud Alignment, Plan View	23

# Warranty

Overcast Innovations warrants Cloud Integrated Ceiling Systems purchased from Overcast Innovations with a limited warranty.

This Limited Warranty covers any defects in material or workmanship under normal use during the warranty period. During the warranty period, Overcast will repair or replace, at no charge, products or parts of a product that prove defective because of improper material or workmanship. All claims must be supported by evidence that the failure has occurred within the warranty period, and that the Cloud Integrated Ceiling System was operated within the design parameters specified and in accordance with all user and installation documentation.

Refer to the *Overcast Standard Warranty Document* within the project closeout documentation for further warranty information. For warranty support, see the *Occupant Quick Reference Guide* within the project closeout documentation.



# Product Overview

## Cloud Integrated Ceiling System



Figure 1 - Example Cloud Arrangement

Overcast Cloud products are designed to accommodate a maximum configuration of device options, including lighting, air diffusers, audio devices, and others. The modular design allows for each Cloud to be configured to suit the needs of a specific building, area, or room. As such, many different building systems and connections may be present on or attached to a Cloud product that are coordinated during the project design phases with the associated trade responsible for each system present.

A range of device family types can be used in each Cloud. The position of a device is relative to the device family and is fixed based on project equipment/device selections and Cloud construction. A device cannot be installed in a cutout not meant for that device family. For example, a typical 24"x24" HVAC diffuser cannot be installed within other device family locations. This example is more evident due to device size, but other devices may appear similar in size to other device family cutouts. *Cloud Layout Plans* and *Cloud Schedules* for the project should be referenced for specific device type and location for each individual Cloud.

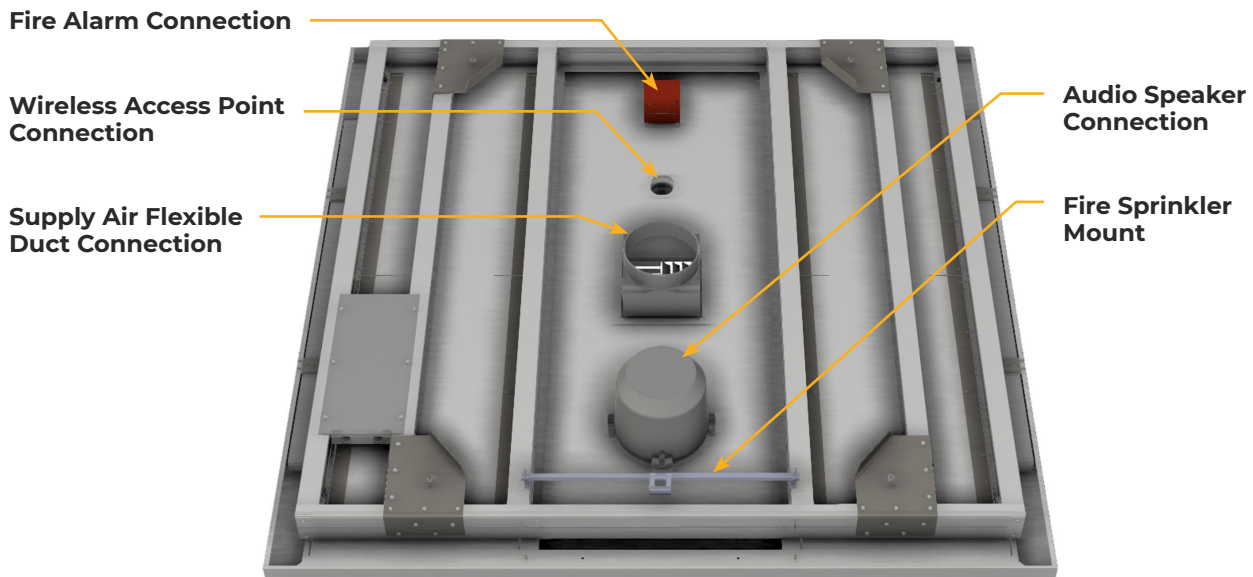


Figure 2 - Example Device Layout, Top of Cloud

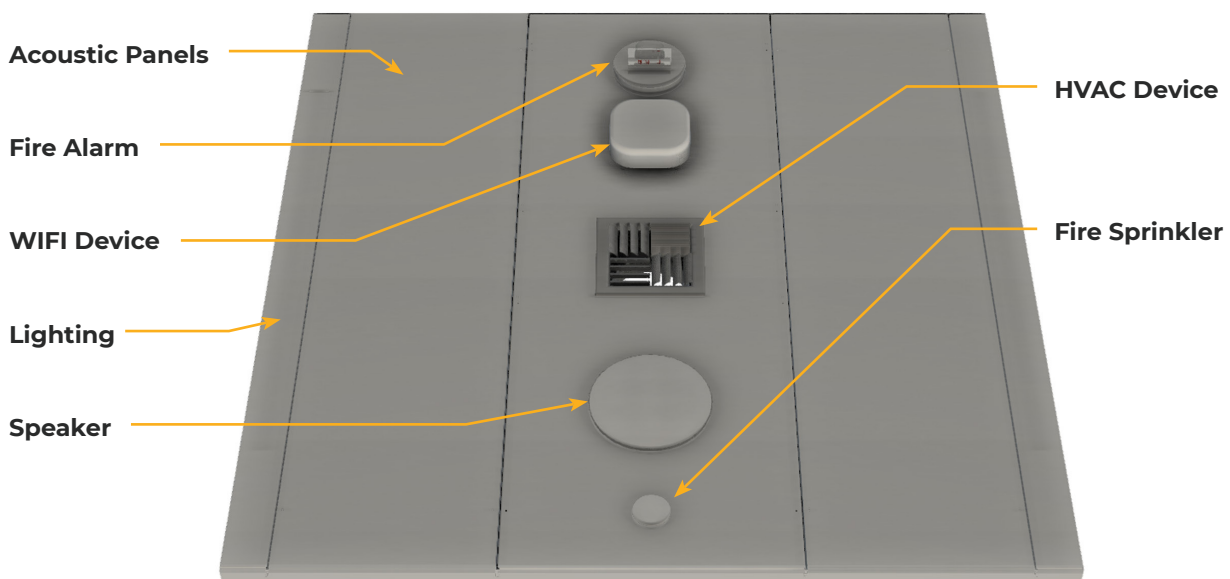


Figure 3 - Example Device Layout, Bottom (face) of Cloud



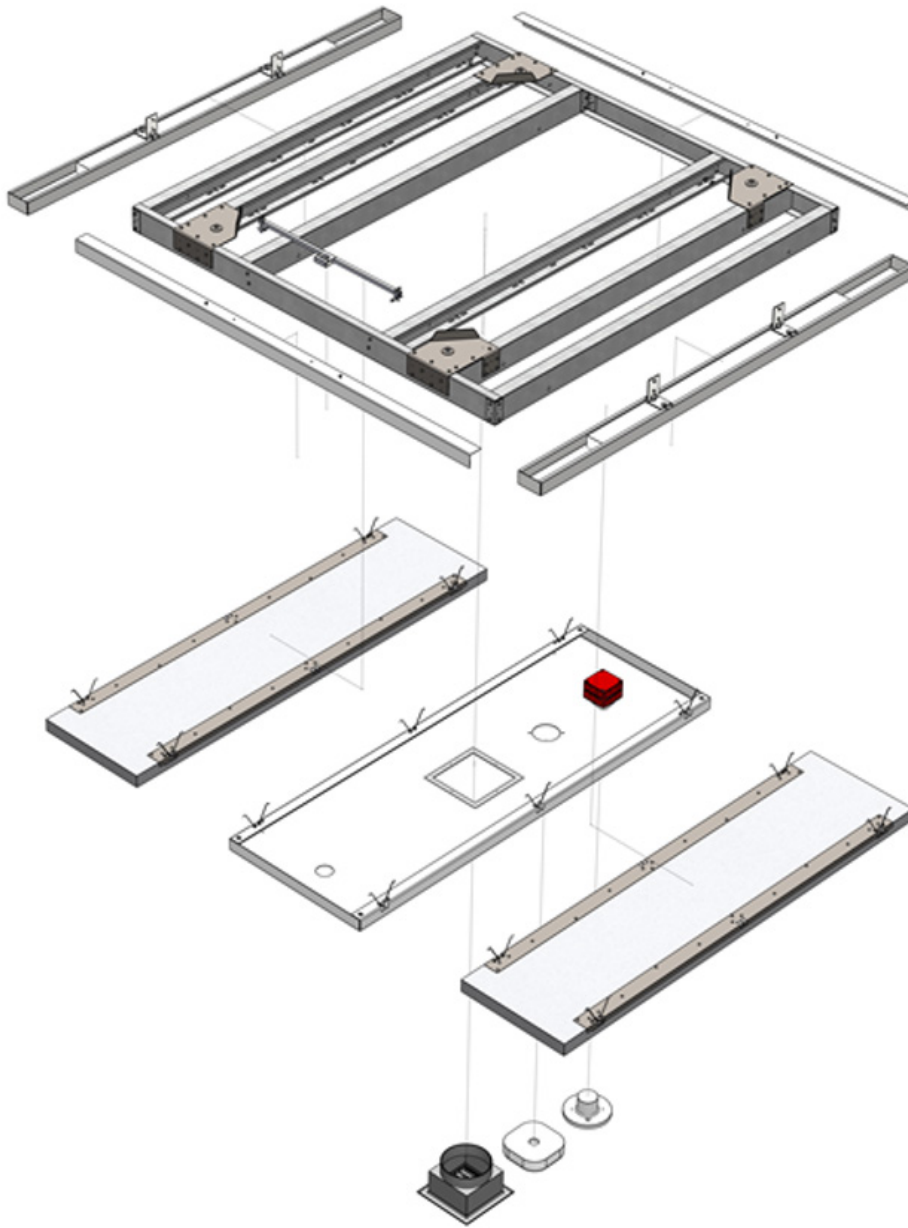
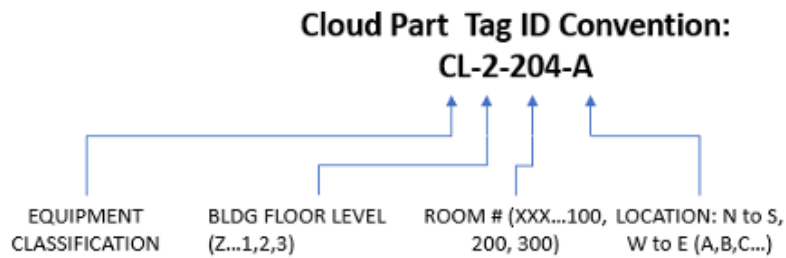


Figure 4 - Cloud Exploded Assembly Overview

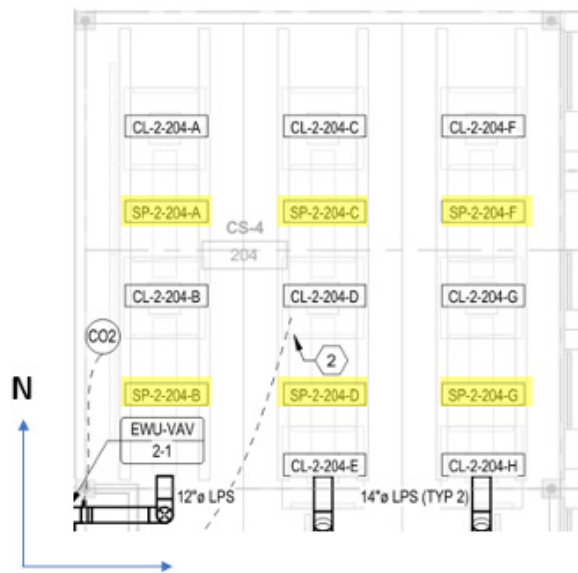
**Figure 4** shows the Cloud structure with several optional devices. Cloud Systems consists of a base structure, substrate, framework, and various optional and configurable assemblies. The visible surface of the Cloud is an acoustic, or finish layer, and can be viewed from below the Cloud System. Clouds are attached to a structure by a standard hanger assembly which are selected based on project specifications and structure type.



**CL-2-204-A-1: Loose Parts Kit – Hanger System**

**CL-2-204-A-2: Loose Parts Kit – Acoustic Assy**

**CL-2-204-A-X: Loose Parts Kit – As Needed**



EXAMPLE: Permit Drawing

Figure 5 – Cloud Naming Convention & Drawing Tags

Clouds are typically organized in a repeating pattern as shown in the **figure 5** permit drawing example. Individual Cloud components within the specified Cloud can be located and uniquely identified on both *Cloud Layout Plans* and *Cloud Schedules*. Additional required components, denoted as a “loose parts kit” included with individual Clouds can be identified by an additional Cloud part number at the end of the Cloud identification sequencing. *Loose Parts Kit Assembly (Field Installation)* drawings are located in the Project Engineered Submittal Package.

The Cloud identification number is utilized within all Cloud schedules that may appear on project system drawings such as mechanical, piping, and structural and will align with the Project Engineered Submittal Package provided to the project team during design phases. To assist in logistics and storage, each individual Cloud package will contain the Cloud identification number and can also be located on each palletized grouping of Clouds on the bill of delivery. **See figure 6.**



Figure 6 - Cloud Product Palletized Bill of Delivery

An identification placard (**Figure 7**) is located on each physical Cloud product. Utilize the *Cloud Layout Plan* to compare equipment on the Cloud product to reduce installation error and ascertain the correct orientation.

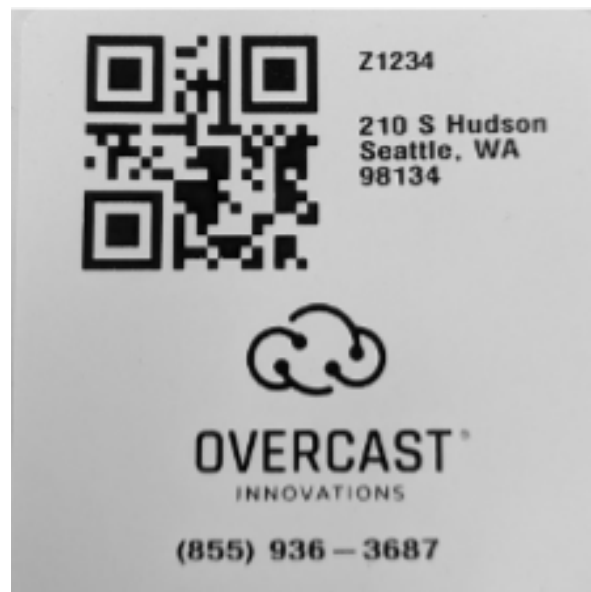


Figure 7 - Example Cloud Identification Placard

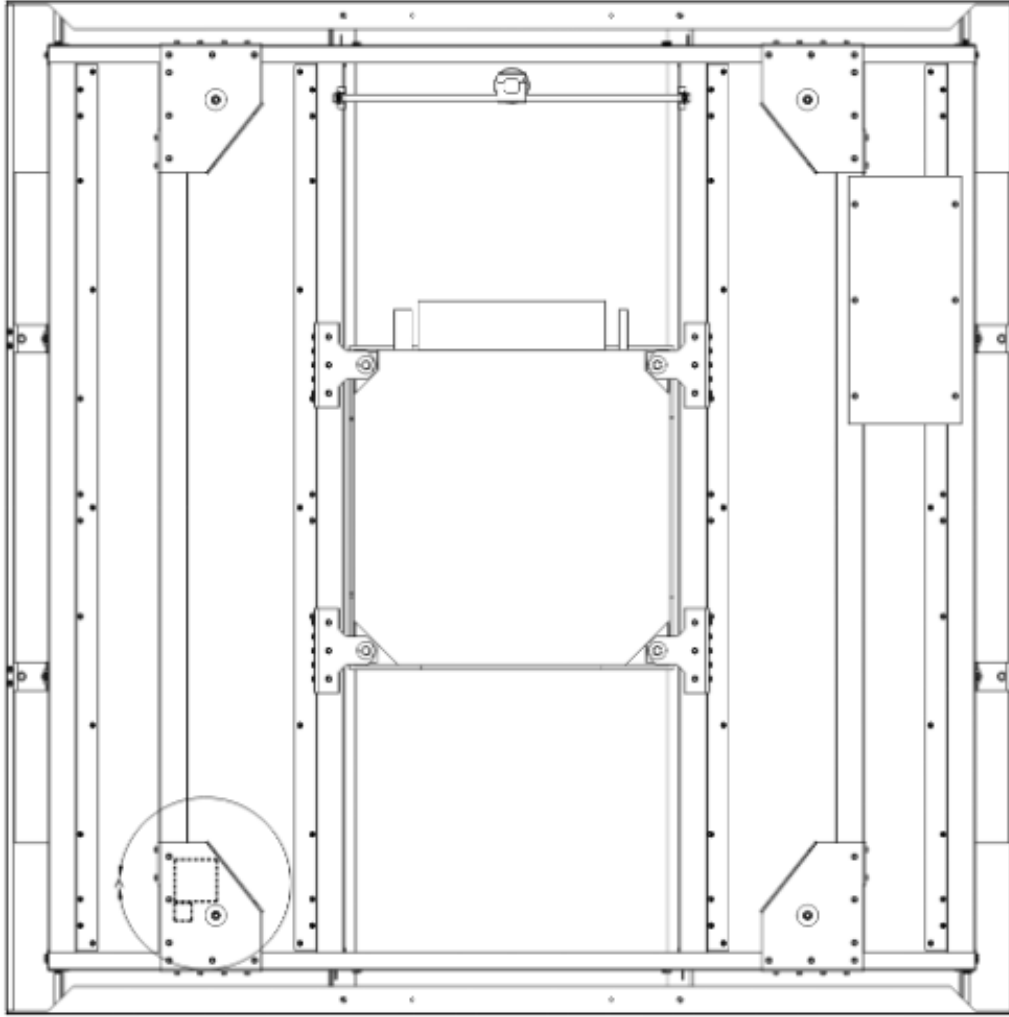


Figure 8 - Typical Cloud Placard Location

# Receiving a Cloud Product

## Initial Delivery Inspection

All Overcast Integrated Ceiling Systems ship in a protective package. This packaging also serves as a protective vessel during installation procedures. All Cloud products and their packaging are inspected prior to shipment.

When receiving a Cloud product, inspect packaging for external visual damage and verify the shock indicator has not been tripped (**see figure 9**). The shock indicator will turn red if impact has occurred. Examples of external visible damage may include a ripped box, crushed, or collapsed edges, forklift fork gouges, excessive abrasions, and signs of tampering or being opened. If these or other types of damage have occurred, immediately report them to the delivery carrier prior to signing shipping documents and notify the manufacturer. The contents of a damaged package with a visible tripped shock indicator should be evaluated prior to installation on a project.



Figure 9 – Example Product Shock Indicator



Remove the top packaging “clam shell” only to inspect package contents. It can be helpful to take reference photos of the package layout prior to disturbing contents for use during reassembly (**see figure 10**).

Upon completion of inspection, re-assemble the box and contents back to original form for further handling and storage. Cloud product packages may contain crush prevention inserts to prevent damage to product. If these are present upon opening package, it is imperative that they be re-positioned to the original location if moved during inspection.



Figure 10 – Product in Clam shell Packaging with Inserts



Figure 11 - Palletized Product

Cloud product delivery is typically scheduled with Cloud installation to minimize impact on jobsite footprint and reduce the potential for product damage.

If building access or other factors require un-palletizing a shipment prior to delivery to the installation location, each Cloud product shall remain in the protective packaging until time of install. Cloud products shall not be stacked higher than as originally received from manufacturer.

# Installation & Mounting Instructions

## Installation Sequencing

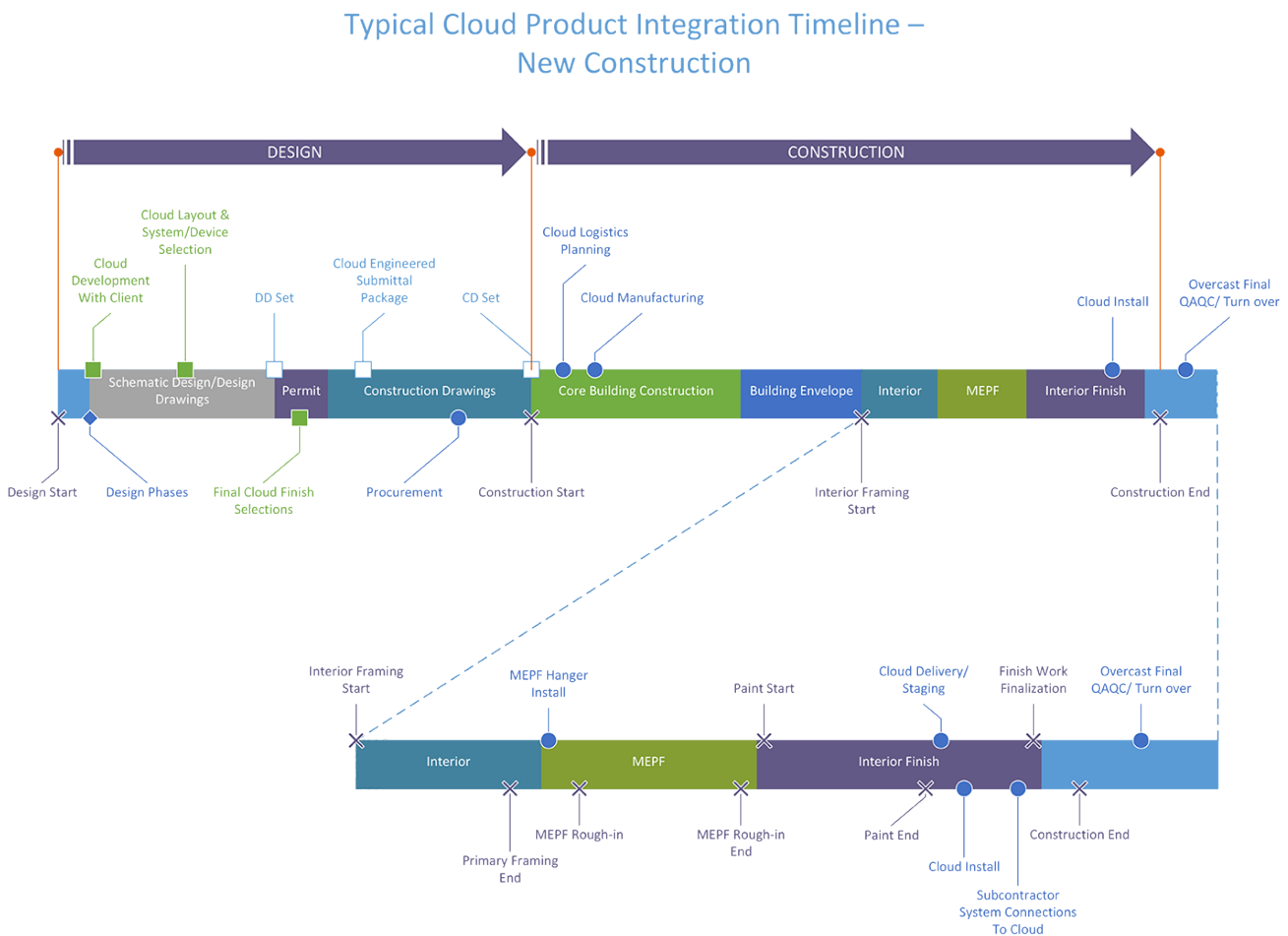


Figure 12 - Typical Cloud Installation Sequence

Overcast Cloud Integrated Ceiling Systems are considered a finish product. It is recommended to align installation of Cloud products after building interior finish work has been completed to prevent product damage. Interior construction activities that create dust, debris, or over-spray, such as drywall work and painting, can create permanent damage to the Cloud product. Interior paint work is a typical project milestone that is completed prior to beginning the Cloud installation sequence (as shown in the “Interior Finish” on **Figure 12**).

## Tools & Equipment List

The following tools and equipment are recommended for use by Overcast Innovations for proper installation based on the required installation methods outlined. For installation tool requirements for an external manufacturer's equipment present on the Cloud, refer to the specified equipment manufacturer's installation documentation or any associated Overcast Innovations literature regarding the specific

equipment. Documentation can be located within the Project Engineered Submittal Package or by contacting Overcast Innovations for document support. Installers of Clouds and systems connected to Cloud products should be prepared for installation through common industry practices and installation methods within their specified trade and jurisdiction.

### Hoist for Cloud Installation (recommended):

To safely lift and install a Cloud Integrated Ceiling product according to the installation methods outlined within this document, it is recommended to utilize a material lift/hoist comparable to the model shown in **Figure 13**.



Figure 13 – Recommended Material Lift  
Genie Super Hoist CO2 Powered Material Lift – 12.5ft, Lift Capacity 300-lbs. Model #GH-3.8 (or equivalent)

**Alignment, Layout, and Leveling tools:**

Robotic Total Station, Measuring Tape, Laser line/plumb laser Level

Leveling/alignment tools should be on hand to aid in Cloud installation and ensure proper layout, alignment, height and leveling. See *fit and finish guidance* section for more on Cloud alignment.

**General/Specialty Hand and Power tools:**

A variety of general and specialty hand and power tools may be required due to the many possible installation conditions, environments, and project selected devices. Devices typically come installed on the Cloud, but manufacturers may require specialty tools and other items for final installation and/or connection procedures. Structural conditions may also dictate the need for other specialty items.

To determine if your installation requires specific tools or installation methods, see the Project Engineered Submittal Package for all selected equipment and their associated installation documents. Consult the included manufacturers product installation specifications for guidance on the equipment or device in question. Depending on the Cloud configuration, further information outlining specific tools, methods, and tasks to be performed to complete assembly are provided in the form of a *Loose Parts Kit Assembly (Field Installation)* drawing.



## Preparing for Installation

Clouds may have shifted during transportation or handling. Minor adjustments to faces and components may be required following structural attachment to ensure final alignment of all components and finishes. It is recommended to wait until final installation is complete to adjust

the fit and finish of all Cloud components to prevent having to repeat adjustment procedures due to handling during install. See fit and finish guidance section below for final adjustment processes.

### Cloud Anchor/Attachment Points

Cloud Integrated Ceiling Products may be installed in a variety of structural conditions. At no time shall an installer utilize an attachment or anchoring method that has not been reviewed and approved by Overcast Innovations and the project Structural Engineer of Record.

Refer to the Project Engineered Submittal Package for a dimensioned *Hanger Layout Plan* and for anchor specification.

**1.** Layout of anchor hardware points:

- Measure and mark each anchor location on the floor. Project each point above on the support structure using a laser line or plumb laser.

NOTE: If Trimble robotic total station equipment (or equivalent) is available, use the Overcast provided points file to locate each anchor location.

**2.** Install ceiling anchors:

- It is the responsibility of the installation contractor to follow original equipment manufacturer (OEM) installation requirements. The OEM documentation applicable to your Integrated Ceiling System will be provided in the Project Engineered Submittal Package. Note specific torque values as the structural integrity of Cloud hanger assembly relies on proper installation procedures.
- It is recommended to install the threaded rod to the structure anchors prior to locating the Cloud product and lifting in the final installation point, to prevent having to complete this task around a lifted Cloud product.

### 1.

To begin the Cloud product installation process, prepare the Cloud protective packaging by removing the top “clam shell” protection. This will expose the Cloud and allow access to the top of the product. Do not remove the Cloud product from the bottom clam shell packaging. The Cloud will remain in the bottom protective packaging throughout all installation procedures as shown in **Figure 14**.

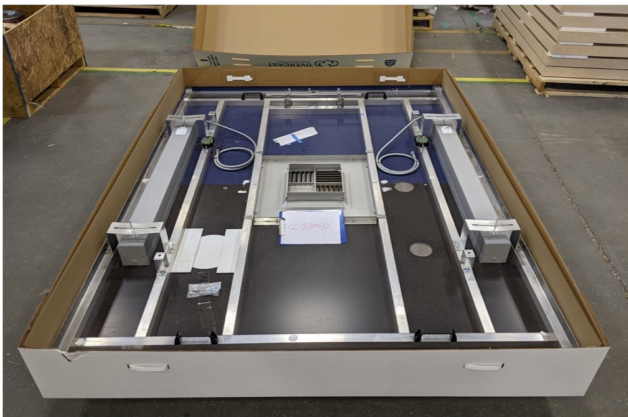


Figure 14 - Cloud Product Prepared for Installation

### 2.

Move and place the Cloud product to the prepared hoist utilizing the external handles on the bottom clam shell packaging and a minimum of two installers. Once positioned on the lift, the packaging plastic handles can be removed to assist in separation of remaining packaging from the Cloud product.

### 3.

Align the Cloud hanger brackets with the structure anchors utilizing the Cloud Identification Placard for correct orientation.

### 4.

Raise Cloud slowly up to the approximate installation height and location. Using multiple installing personnel, have one installer adjust and move hoist while the other guides to align threaded rod with Cloud hanger brackets so that

minimal side to side movement needs to occur to insert threaded rod into hanger as shown in **figure 15**.



Figure 15 - Lifting Cloud into Place

### 5.

Once the Cloud system has been raised to the approximate mounting height, thread (1) loose parts kit nut and washer (if supplied) onto each threaded rod with enough room to allow for adjustment and rod insertion into hanger bracket. Continue to raise Cloud and guide threaded rod into hanger bracket top holes. Once all four threaded rods have been inserted into their associated hanger brackets, secure Cloud by threading a second nut and washer under the hanger bracket up to hanger, securing Cloud in place. See **Figure 16** for proper hanger assembly installation. At this time, the Cloud is fully supported.

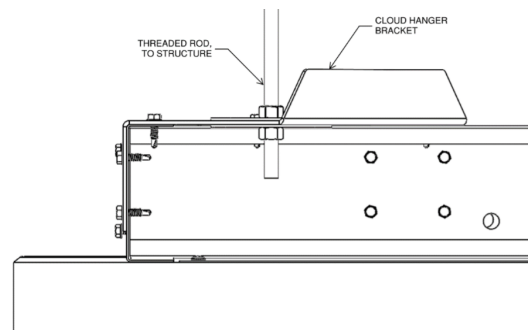


Figure 16 - Cloud Hanger Bracket



Figure 17 - Securing and Fastening Integrated Ceiling System

### 6.

It is recommended to level the Cloud while hoisted to reduce load on the hanger nuts, making it easier to adjust the Cloud in place. Adjust the bottom nut up to raise or down to lower the Cloud while utilizing a level on the Cloud frame above until a level installation has been achieved. Do not level a Cloud based on the packaging clam shell, sides, or bottom. Ensure that there is at least 0'-1" of threaded rod exposed through the hanger hole and bottom nut to ensure visual thread engagement of nuts and further adjustment if needed. See **Figure 16**.

### 7.

Once the Cloud has been leveled, tighten the top nut above the hanger bracket securing the Cloud and assembly in place. Verify all hanger assemblies are fastened properly.

### 8.

While one worker begins lowering the material hoist and bottom clam shell packaging, the other should visually confirm that the Cloud is separating from the bottom clam shell packaging without issue. If the packaging appears to be stuck or hung on a specific area or component, cease lowering and inspect to prevent damage to the Cloud product.



Figure 18 - Removing Bottom Clam Shell

## System Connections to Cloud

Complete Subcontractor or Overcast Innovations provided equipment/device connections per *Cloud Schedule*. The *Cloud Schedule* provided by Overcast Innovations will define which devices are applicable and present to each finished good ID allowing the installer to identify the connections required. See the *Systems Interface Drawing* for dimensioned locations of connections for each system present on the applicable Cloud product.

In select devices, an added component or connection may be present for integrating Cloud devices to building systems. Such connections may include a wiring harness for low voltage to building line voltage based on the selected lighting device. For other equipment and devices, a standard connection will be hosted on the device provided by device manufacturer per associated industry. Such equipment could include various HVAC diffuser necks based on the specified model. Reference Overcast provided manufacturer's installation documentation within the Project Engineered Submittal Package for diagrams and other connection requirements for each equipment type present.



Figure 19 - System Connections to Cloud



## Fit & Finish Guidance

Cloud products must be properly aligned and must be consistent with each other when viewed along a horizontal and vertical plane to meet acceptable installation standards. Even small deviations can be apparent when viewing a series of Clouds within a space. Clouds shall be installed in accordance with approved Project Engineered Submittal Package documents. Reference *Cloud Layout Plan* and *Hanger Layout Plan* drawings for dimensioned Cloud location and orientation. See *Cloud Identification* section for further information related to Cloud orientation.

Cloud products must be aligned to the pre-coordinated and approved ceiling height plane at the bottom face as shown in **Figure 20**.

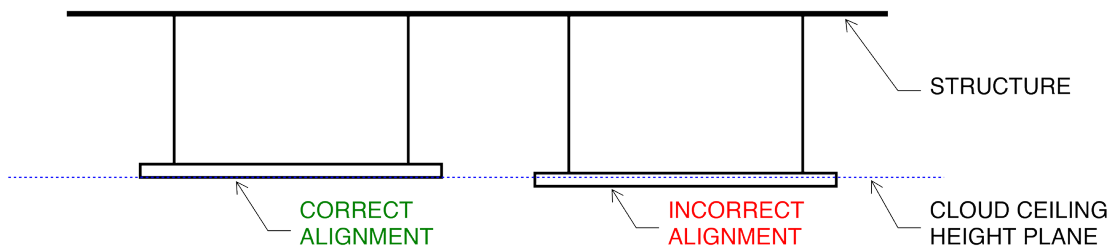


Figure 20 - Cloud Alignment, Elevation

Cloud products must be aligned as viewed down a row or series of Clouds when designed to be placed on a shared plane, or within a grid style layout. Clouds must be parallel along edges with no discernible rotation. See **Figure 21**.

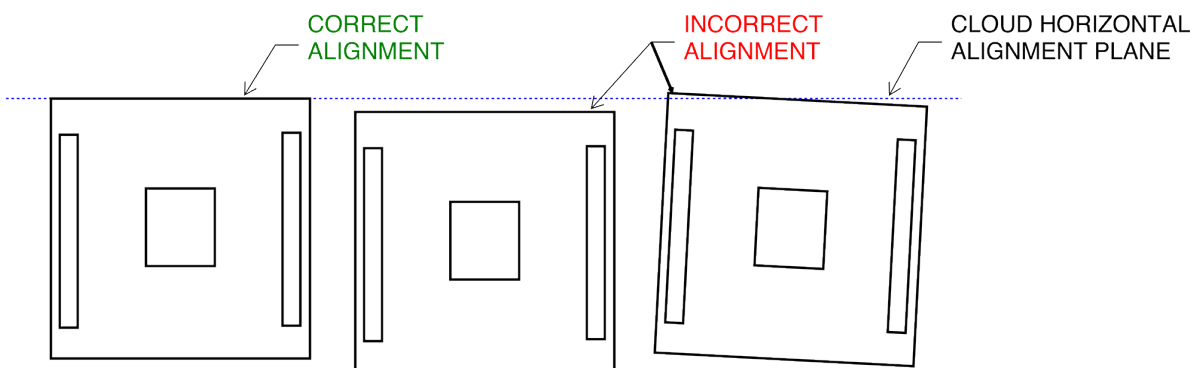


Figure 21 - Cloud Alignment, Plan View



**ATTENTION: COMPLETION OF THE INSTALLATION CHECKLIST INCLUDED IN THE ASSOCIATED LITERATURE IS RECOMMENDED FOR OVERCAST CLOUD INTEGRATED CEILING SYSTEM TURNOVER AND FINAL PRODUCT INSTALLATION QUALITY ASSURANCE**

Completion of the included checklist by installing party is recommended to ensure Cloud Integrated Ceiling Systems are installed in a manner consistent with requirements outlined within this manual and accepted industry practices. It is recommended that each subcontractor or party responsible for installation, connection, or integration of Cloud Integrated Ceiling Systems or equipment and devices hosted on the Cloud product complete the section pertaining to their scope of work (i.e., Cloud Installation, HVAC, Electrical).

It is recommended to validate installation of Clouds per checklist requirements by Cloud(s), room, zone, level, project, or other applicable grouping of Cloud products within a building as deemed appropriate by the reviewing party's scope.

# Operations & Maintenance

Overcast Innovations Integrated Ceiling Systems may contain moving parts. Please refer to your approved Construction Documents for a Cloud schedule specific to your project. Operation and maintenance information regarding a specific device or equipment hosted on a Cloud product can be located within the Project Engineered Submittal Package. Integrated Ceiling Systems characterized by not containing any moving parts require no maintenance other than cleaning unless outlined in the provided OEM documentation. The interval between cleaning varies depending on type of device/equipment, the placement of the product, and the type of activities carried out in the building and should generally follow industry accepted and typical building space maintenance activities for the device or material in question. Integrated Ceiling Systems characterized by containing moving parts shall require routine maintenance per Overcast Innovation provided product specifications or OEM equipment manufacturer documentation.

For any questions or concerns regarding cleaning or maintenance of a specific component, finish, or material, contact Overcast Innovations.

# Service & Repair

Reference OEM equipment located in the *Project Engineered Submittal Package* documentation for service or repair information related to OEM equipment on Cloud products.

For Overcast product support, see the *Occupant Quick Reference Guide* within the project closeout documentation.