

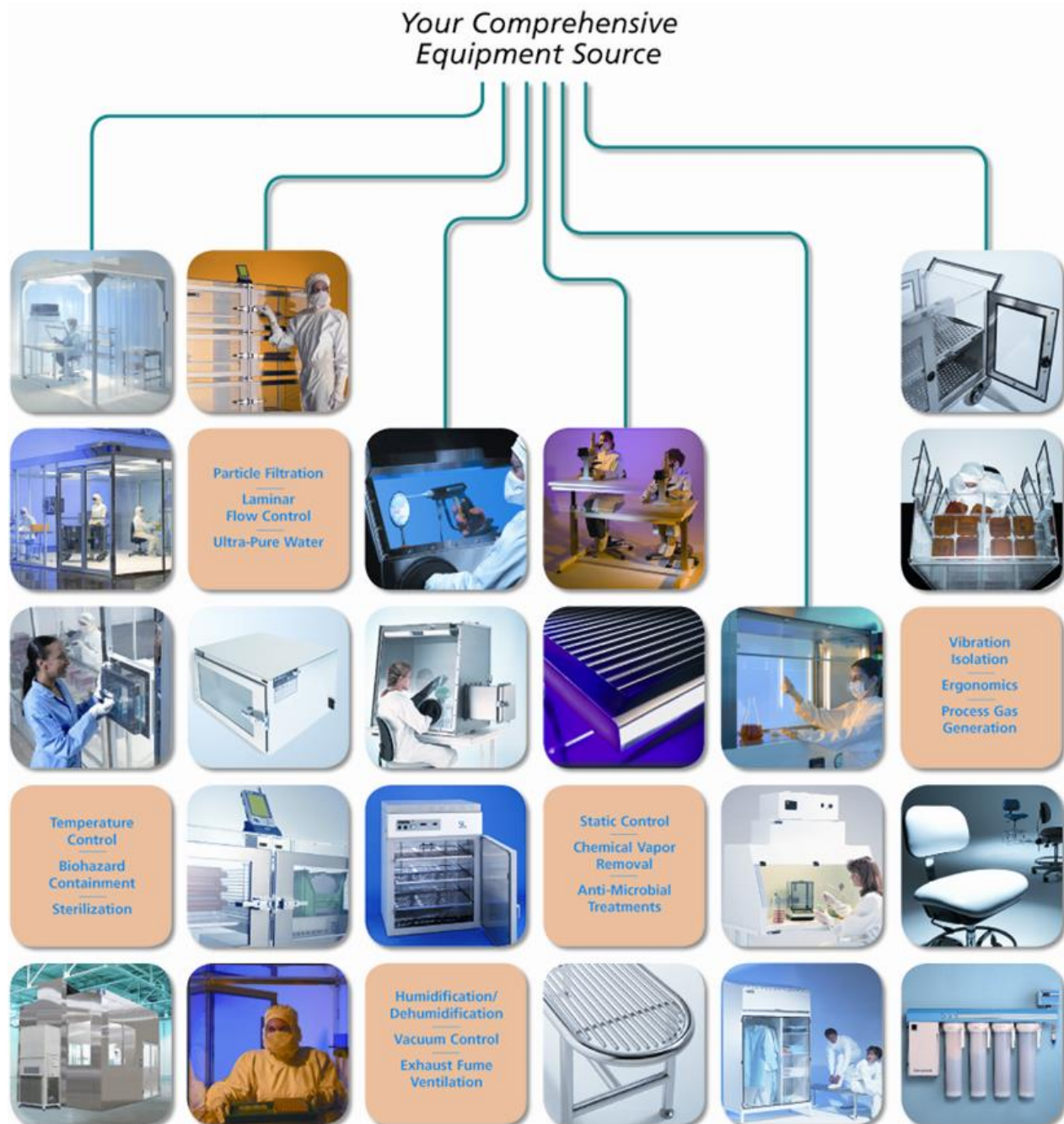


Installation Guide

Document No. 1789-20

Fire-Rated BioSafe® Cleanroom Windows

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Safety Notice

A thorough familiarity with all operating guidelines is essential to safe operation of the product. Failure to observe safety precautions could result in poor performance, damage to the system or other property, or serious bodily injury or death.

The following symbols are intended to call your attention to two levels of hazard involved in operation:



CAUTION

Cautions are used when failure to observe instructions could result in significant damage to equipment.



WARNING

Warnings are used when failure to observe instructions or precautions could result in injury or death.

The information presented here is subject to change without notice.

1.0 Introduction

Terra Universal's Fire-Rated BioSafe® Cleanroom Windows feature a flush-mount frame design that eliminates horizontal surfaces and crevices where contaminants can collect. The 304 stainless steel frame seals tightly against the interior wall surface to allow for easy cleaning and sterilizing.

The window assembly is available in either single-pane or double-pane configuration. The single-pane design has one fire-rated glazing mounted flush to one side of the wall. The double-pane design has two glazings, each mounted flush to both sides of the wall.

2.0 Specifications

Listings:

Classified and labeled by Underwriters Laboratories, Inc.® (UL).

Frame tested in accordance with UL 9 Fire Tests of Window Assemblies, UL File No. R39784:

- Single and Double Pane Flush Mount Fire Window Frame Assemblies intended for 20 min., no hose locations. Tested under positive pressure conditions.
- Window assemblies may be installed in steel stud/gypsum board, masonry or concrete assemblies having a minimum of 1 hr fire rating. In steel stud/gypsum board, the framed opening is to be lined with a single layer of gypsum board.

Glass Sizes:

Max. Exposed Area: 3,299 sq.in.

Max. Exposed Width: 70.5"

Max. Exposed Height: 46.8"

Fire-Rated Glazing Options: UL-Listed for a minimum of 20 minutes

NOTE:

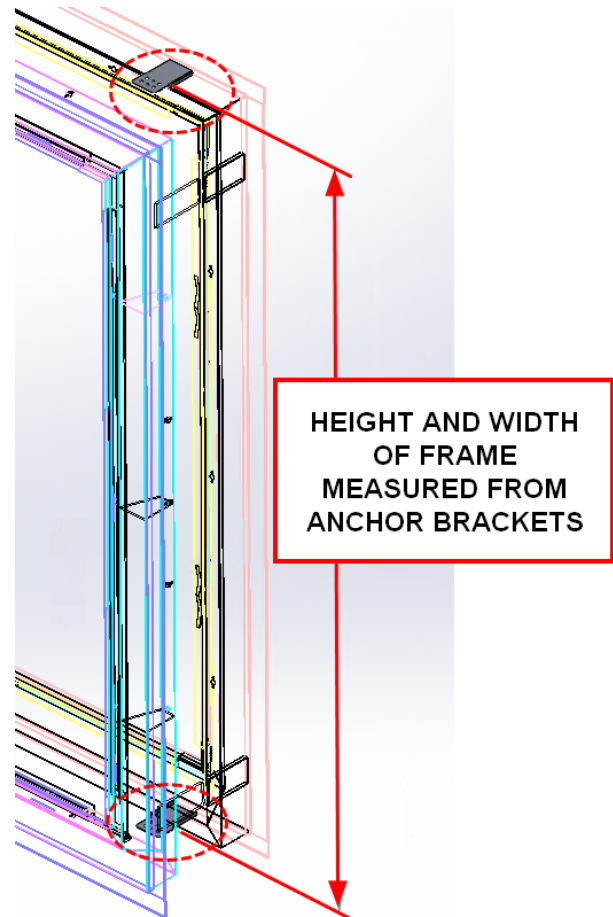
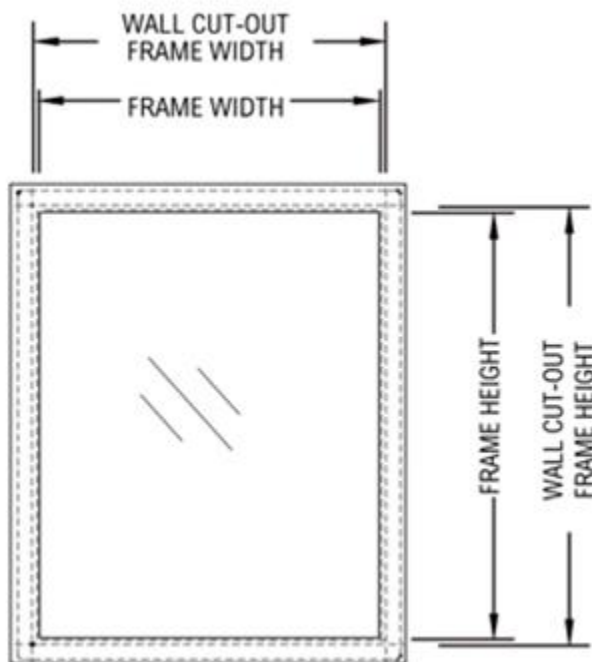
- Terra Universal does not accept any warranty or liability for installations not in compliance with this document, or use in any application other than that for which it is specified.
- Due to widely varying building codes, it is the responsibility of the architect/owner and installer to ensure the window assembly, glazing material, and other hardware complies with all applicable local building codes and laws.



FINISHED Wall Cut-Out and Thickness:

NOTE: Frame components are fabricated to fit the wall thickness specified on the order.

- Minimum Wall Thickness: 4-7/8"
- Finished Wall Cut-Out Size:
 - Frame Width (including outside anchor brackets) + 0.5"
 - Frame Height (including outside anchor brackets) + 0.125"





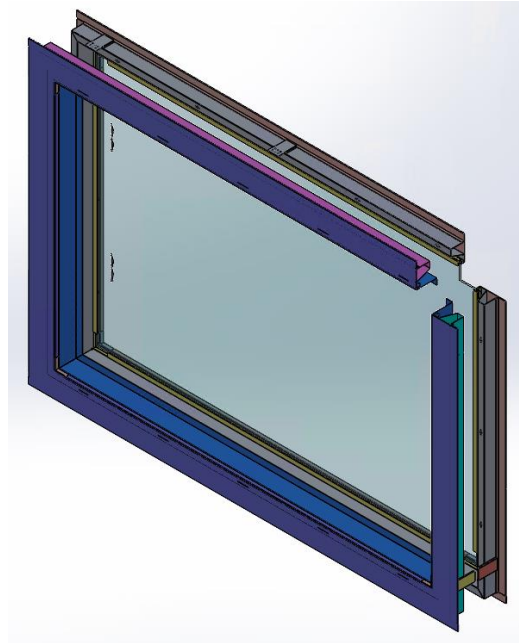
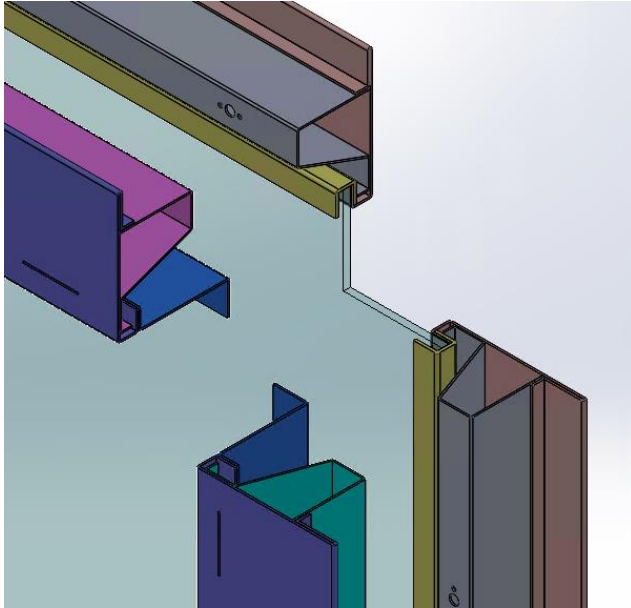
Installation Guide

BioSafe® Cleanroom Windows

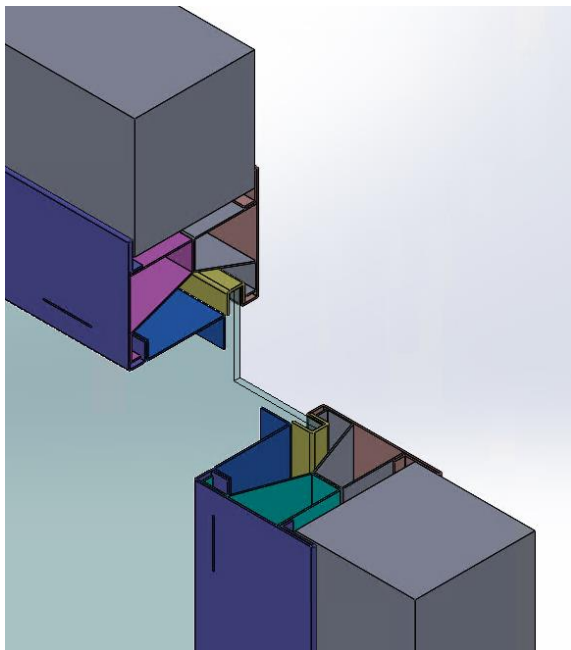
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Cross-Section View of Single-Pane Window

Exploded view of front and rear frame assemblies



Installed in wall





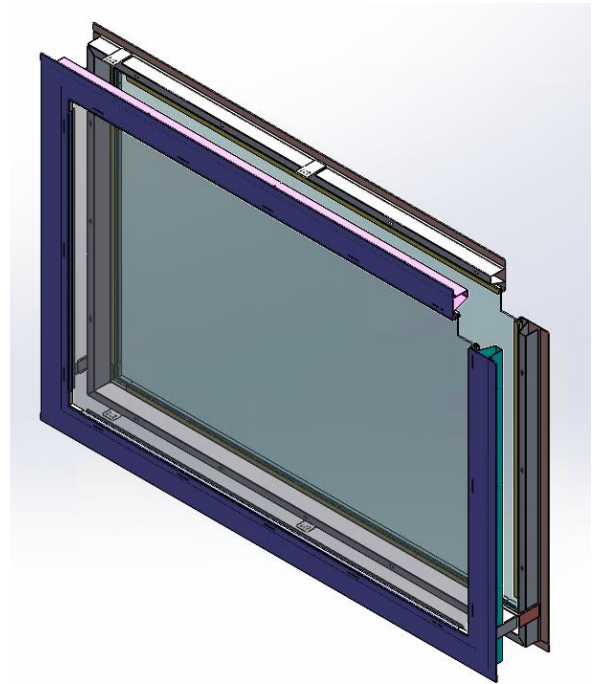
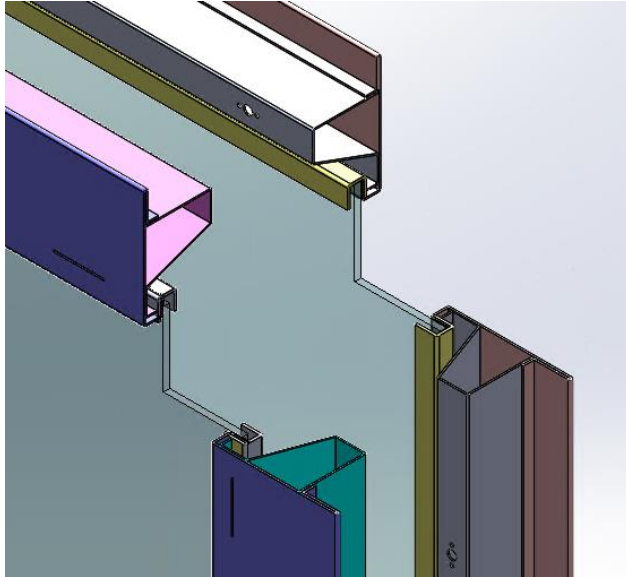
Installation Guide

BioSafe® Cleanroom Windows

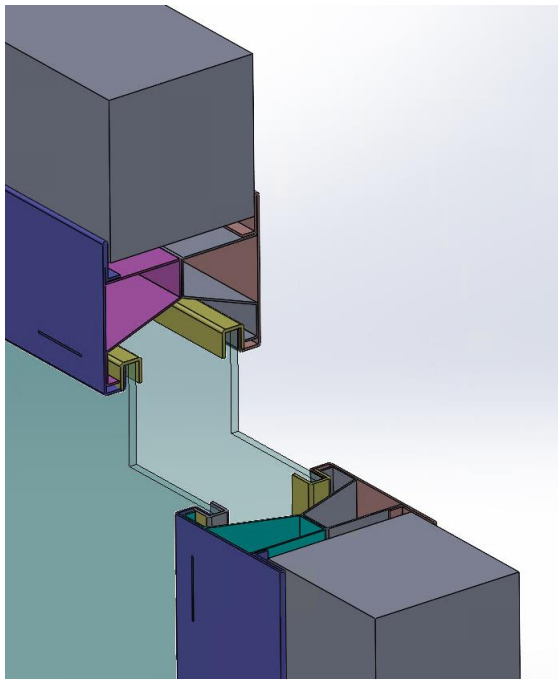
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Cross-Section View of Double-Pane Window

Exploded view of front and rear frame assemblies



Installed in wall



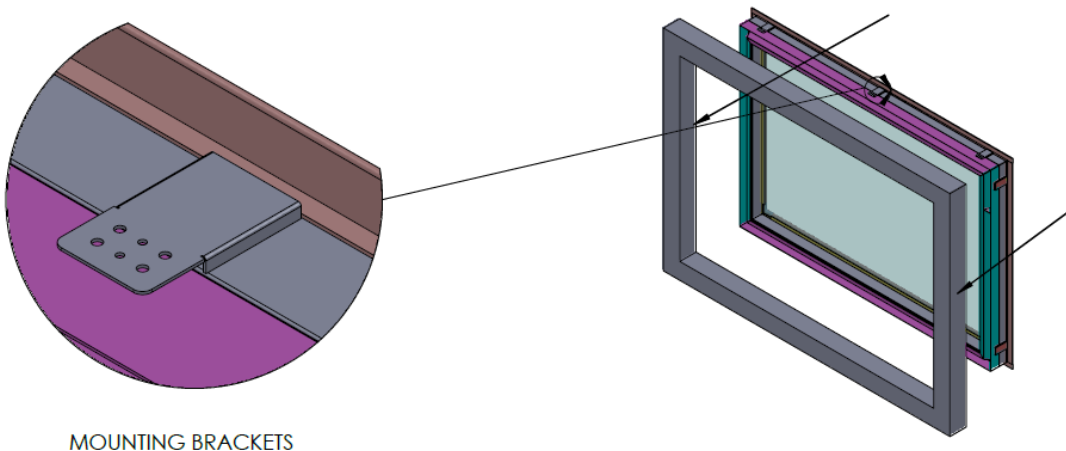


3.0 Installation

1. Optional video for reference: <https://www.youtube.com/watch?v=WzHbtfm5yOQ>
2. Make the wall cut-out according to the diagram above.

NOTE: DO NOT PROCEED WITH INSTALL IF THE WALL CUTOUT OR WALL THICKNESS DOES NOT MATCH THE DIMENSION SHOWN ON THE DIAGRAM IN SECTION 2.0. Wait for the wall to be fixed to match the diagram before proceeding with installation.

3. Position the frame with the anchor mounting brackets within wall cutout.

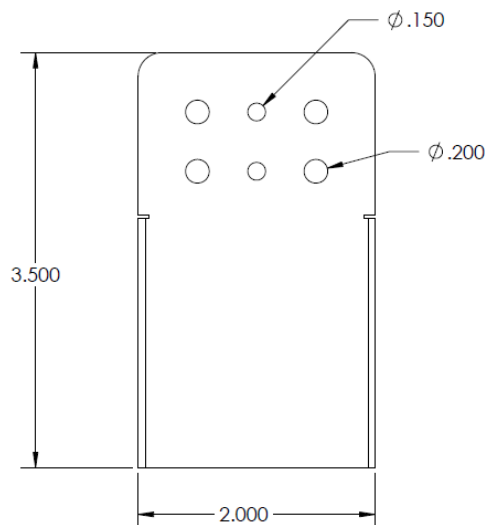


MOUNTING BRACKETS



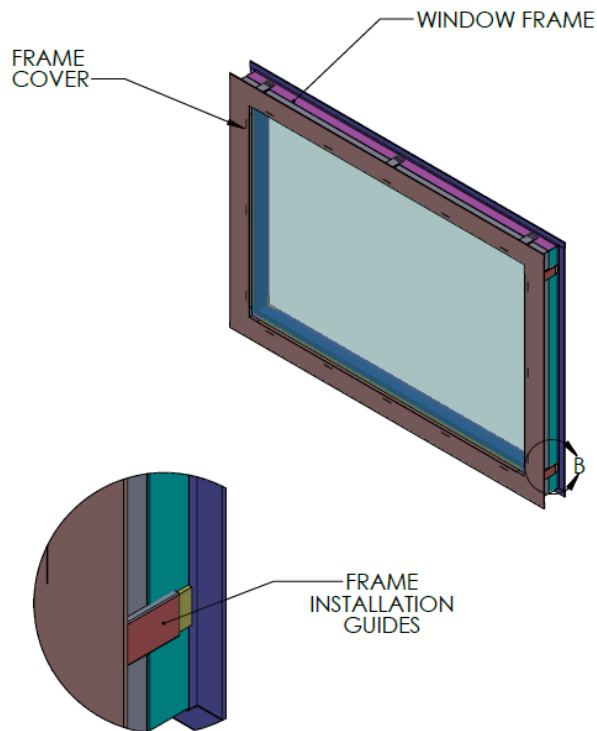
4. Apply anchor fasteners to anchor mounting brackets to secure the frame to the wall. Each anchor bracket includes varying diameter holes to support different fastener sizes. A minimum of one fastener is needed per anchor bracket to secure the frame to the wall.

NOTE: Due to the varying wall conditions and performance requirements, anchor fasteners are not provided or specified in these instructions and are the responsibility of the installer. Recommended minimum size of #14 x 4" self-drilling, stainless steel screws.





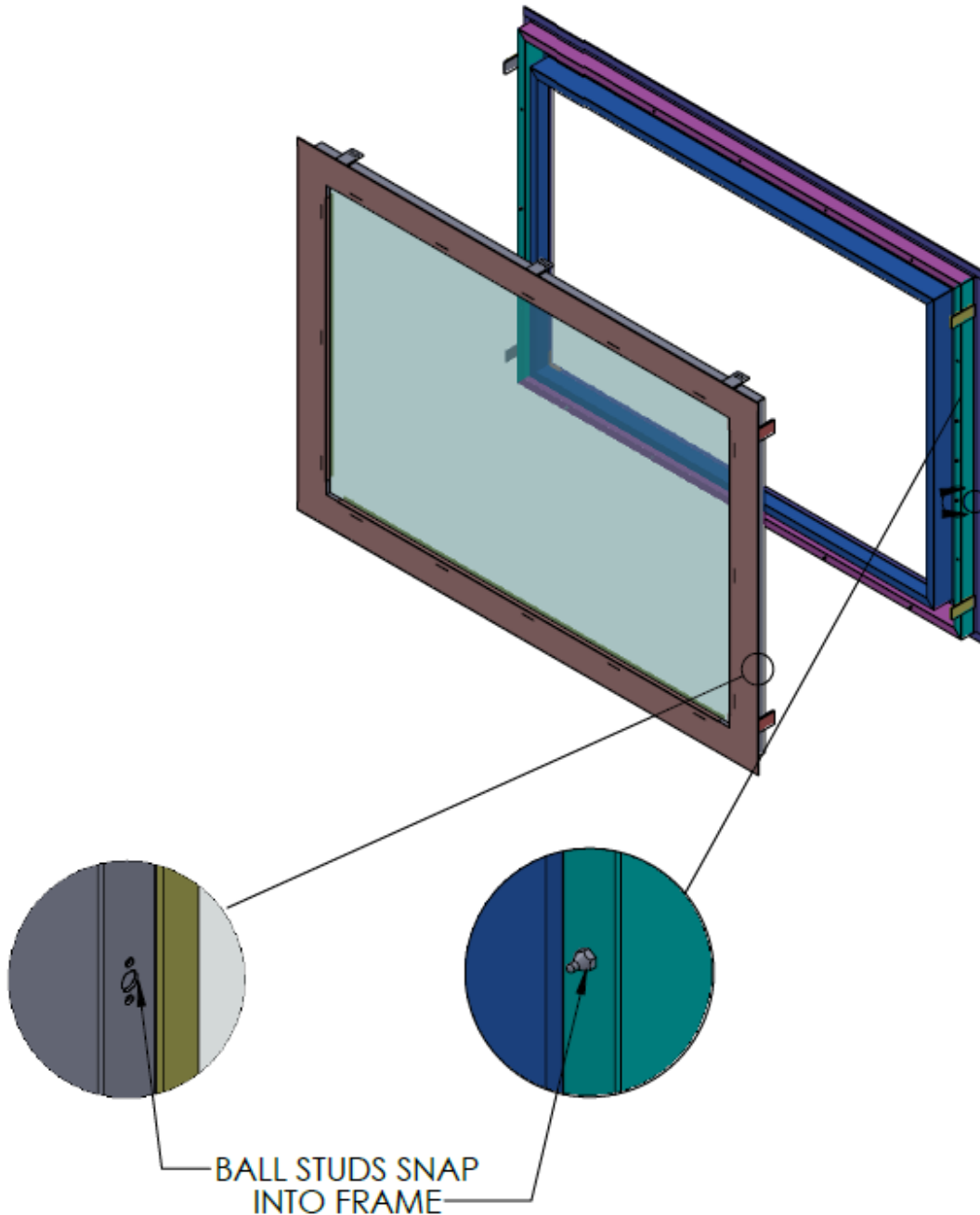
5. Once all the perimeter anchor brackets are fastened to the wall, attach the 2nd frame assembly to the 1st assembly that is already anchored to the wall. The male and female guide tabs from each frame slide into each other for proper alignment.



SCALE 1 : 5



6. Push the two assemblies together until all of the ball studs around the perimeter snap together in the corresponding holes.





7. After the entire window assembly is fastened to the wall, apply a bead of appropriate sealant around the perimeter to fill any remaining gaps between the window frame and wall.





4.0 Warranty

Products Manufactured by Terra: Terra Universal, Inc., warrants products that it manufactures to be free from defects for a period of 12 months for parts and 90 days for labor, commencing from the date of shipment. Terra's sole responsibility is to repair or replace, at its option, any part of the product that proves defective or malfunctioning during this time limit. In some cases, components incorporated in Terra Universal products are covered by additional warranties from component manufacturers; obtain specific information from Terra sales representatives. This warranty is void if the equipment is abused or modified by the customer, is installed or operated outside Terra's operating instructions or specifications, or is used in any application other than that for which it is specified. This warranty does not include routine maintenance or service procedures, breakage of quartz baths after 60 days, shipping damage, nor damage from misuse, intentional or unintentional abuse, neglect, natural disasters, or acts of God.

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Freight Shortage or Damage: Upon receipt of any equipment from Terra Universal, Inc., customer shall immediately unpack and inspect for damage or shortage. The customer shall not accept a damaged package or a short shipment until the carrier makes a "damage or shortage" notation on both the carrier's and customer's copy of the freight bill or delivery receipt. Service title passes when the shipment is loaded, so customer is responsible for filing and collecting a freight claim. Any replacement products must be ordered and paid for separately. For Terra's "Policy and Procedures for Returning Goods," see Terra's Internet site: www.TerraUniversal.com.

Generally, customers can improve the chance of collecting on a freight claim by following these procedures: 1) formally requesting that the carrier inspect the shipment immediately upon suspecting damage or shortage to verify condition; 2) notifying the carrier upon discovery of concealed damage and requesting an inspection within 15 days of receipt, both in person or phone and following up via mail; 3) keeping the shipment as intact as possible, including retaining original packaging materials and keeping the product as close to the original receiving location as possible; 4) holding salvage for disposition by the carrier.

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Warranty Returns: All warranty returns must be authorized in advance by Terra Universal and approved under an RMA. Unless approved in advance for good reason, all returns must be in original condition, including all manuals, and must be packaged in original packaging materials. All returned goods are to be shipped to Terra Universal, freight prepaid at customer's expense. See Terra's "Policy and Procedure for Returned Goods."

Thank you for choosing Terra Universal!