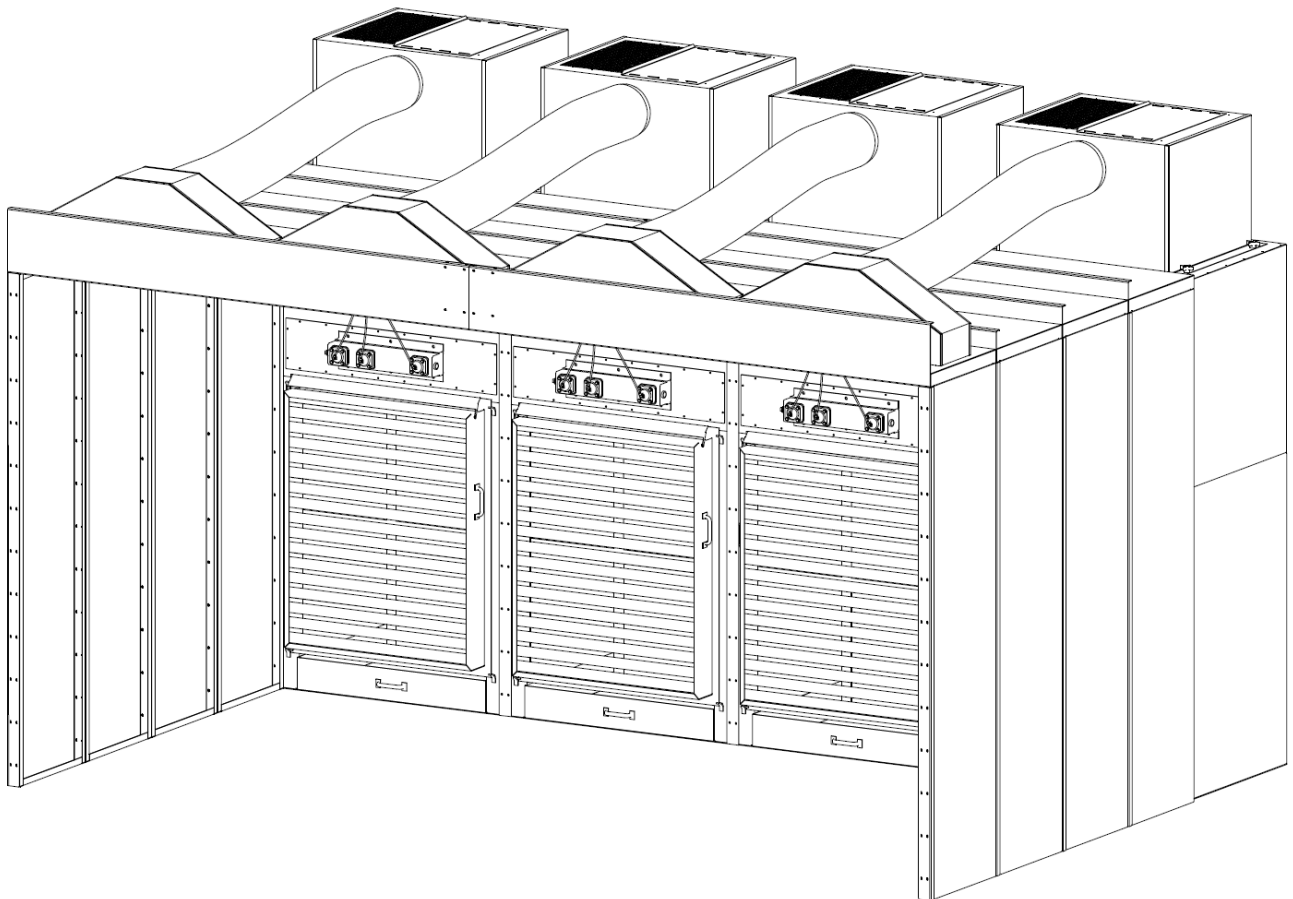# MICRO AIR

# CLEAN AIR BOOTH

INSTALLATION MANUAL

This manual contains specific cautionary statements relative to worker safety. Read this manual thoroughly and follow as directed. It is impossible to list all of the hazards of dust control equipment. It is important that use of the equipment be discussed with a Micro-Air Representative. Persons involved with the equipment or systems should be instructed to operate in a safe manner.

MICRO AIR INC.
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### CONTENTS

TABLE 1 – 8' W Booths

| COMPONENT DESCRIPTION | CABIR1-888 | CABIN1-888 | CABUR1-888 | CABUN1-888 | CABIR2-888 | CABIN2-888 | CABUR2-888 | CABUN2-888 |
|---|---|---|---|---|---|---|---|---|
| INSULATED | YES | YES | NO | NO | YES | YES | NO | NO |
| REGAIN | YES | NO | YES | NO | YES | NO | YES | NO |
| SIDE PANEL | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| BACK PANEL | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 |
| TOP PANEL | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 |
| REGAIN TOP PANEL | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| VERTICAL SUPPORT | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| HEADER | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| HEADER BRACE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HORIZONTAL SUPPORT | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| HORIZONTAL SUPPORT BRACE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10" WYE | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| CABINET CONNECTION PLATE | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 |
| #8-18x3/4" SLF DRILLING/TAPPING | 32 | 0 | 32 | 0 | 32 | 0 | 32 | 0 |
| 1/4"-20x3/4" BOLT | 252 | 252 | 252 | 252 | 204 | 204 | 204 | 204 |
| 1/4"-20 NUT | 222 | 222 | 222 | 222 | 168 | 168 | 168 | 168 |
| 1/4" FLAT WASHER | 474 | 474 | 474 | 474 | 372 | 372 | 372 | 372 |
| 1/4" LOCK WASHER | 474 | 474 | 474 | 474 | 372 | 372 | 372 | 372 |

TABLE 2 – 12' W & 16' W Booths

| COMPONENT DESCRIPTION | CABIR3-1288 | CABIN3-1288 | CABUR3-1288 | CABUN3-1288 | CABIR4-1688 | CABIN4-1688 | CABUR4-1688 | CABUN4-1688 |
|---|---|---|---|---|---|---|---|---|
| INSULATED | YES | YES | NO | NO | YES | YES | NO | NO |
| REGAIN | YES | NO | YES | NO | YES | NO | YES | NO |
| SIDE PANEL | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| BACK PANEL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOP PANEL | 6 | 8 | 6 | 8 | 6 | 8 | 6 | 8 |
| REGAIN TOP PANEL | 3 | 0 | 3 | 0 | 2 | 0 | 2 | 0 |
| VERTICAL SUPPORT | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| HEADER | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| HEADER BRACE | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| HORIZONTAL SUPPORT | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| HORIZONTAL SUPPORT BRACE | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 10" WYE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CABINET CONNECTION PLATE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #8-18x3/4" SLF DRILLING/TAPPING | 48 | 0 | 48 | 0 | 64 | 0 | 64 | 0 |
| 1/4"-20x3/4" BOLT | 297 | 294 | 297 | 294 | 324 | 324 | 324 | 324 |
| 1/4"-20 NUT | 255 | 252 | 255 | 252 | 276 | 276 | 276 | 276 |
| 1/4" FLAT WASHER | 552 | 546 | 552 | 546 | 600 | 600 | 600 | 600 |
| 1/4" LOCK WASHER | 552 | 546 | 552 | 546 | 600 | 600 | 600 | 600 |

NOTE: Refer to pages 13-16 for assembled drawings of each booth.

**Note:** Before assembly, remove parts from packaging and inspect for any possible damage incurred during shipping. Identify each part and verify quantities.

**EQUIPMENT REQUIRED**

1. Step ladders
2. Overhead Crane/Forklift
3. Lifting Straps
4. 3/8" Wrenches and/or Ratchet with appropriate sockets
5. C-clamp pliers
6. Hammer or mallet
7. Protective/Work gloves

**WARNING!!**

Proper handling and care must be taken when assembling equipment. Use proper eye wear and gloves. Pieces can be heavy and sharp around edges.

**INSTALLATION**

1.  Assemble side panels to CAB module with the appropriate 1/4" hardware (See **FIG. 1**). Each panel is bolted on in twelve places onto the CAB module. Bolt through holes closest to the inside flange of the side panels. Make sure side panels are flush with CAB module at the bottom. Side panels should stick out 1.25" from CAB side wall. Bolt down side panels to ground using at least 2 anchors per panel (see **FIG. 2**). Anchors are NOT provided.

    **NOTE:** For booths with a single CAB module, install back panels to CAB module first. Stand back panels next to CAB module. Use cabinet connection plate to install the back panels to the CAB module (see **FIG. 3**). Once the back panels are installed, bolt side panels to the back panels.



CAB Module

¼" Hardware

Side Panel

**FIG. 1**

**FIG. 2**



**FIG. 3**
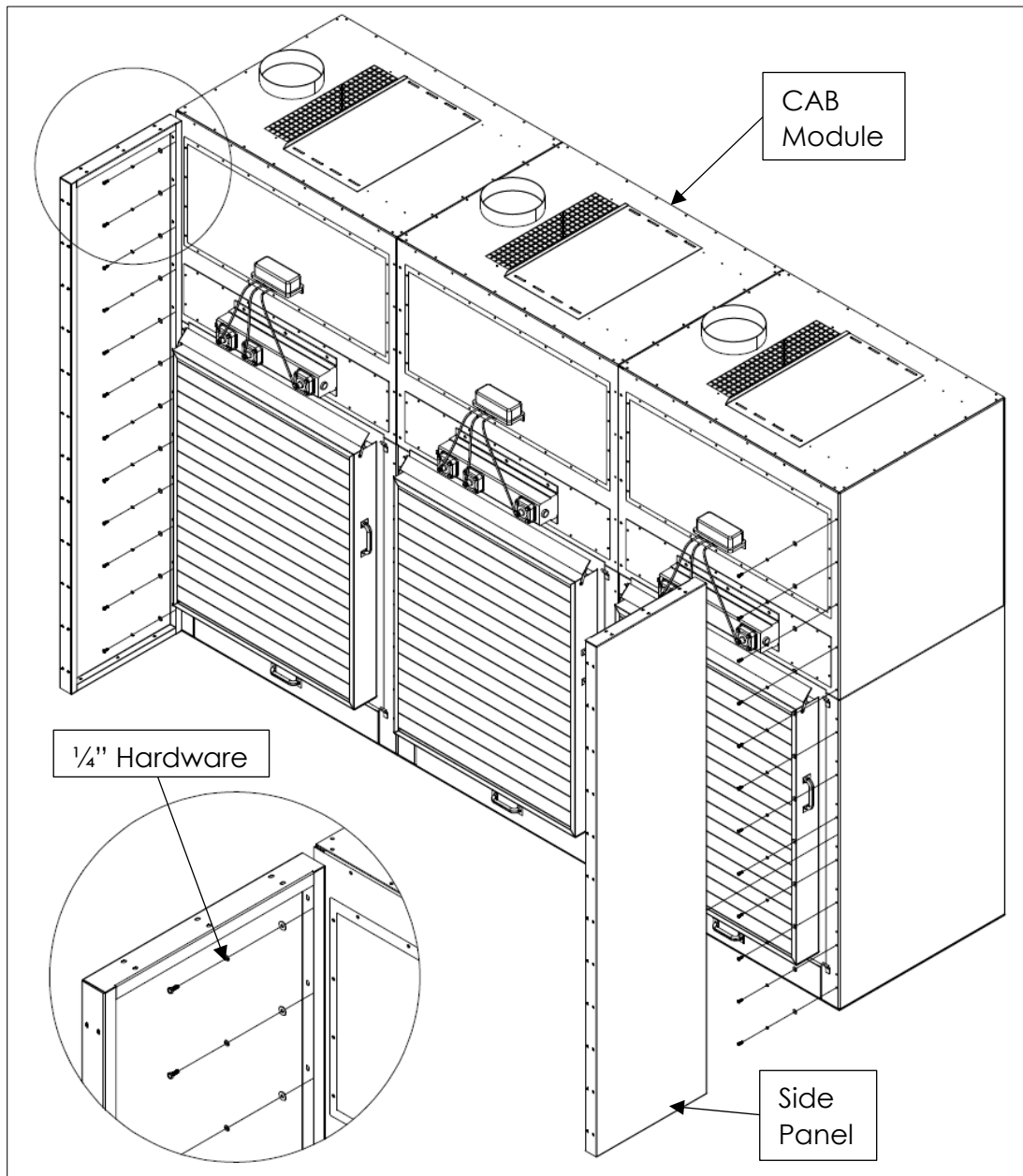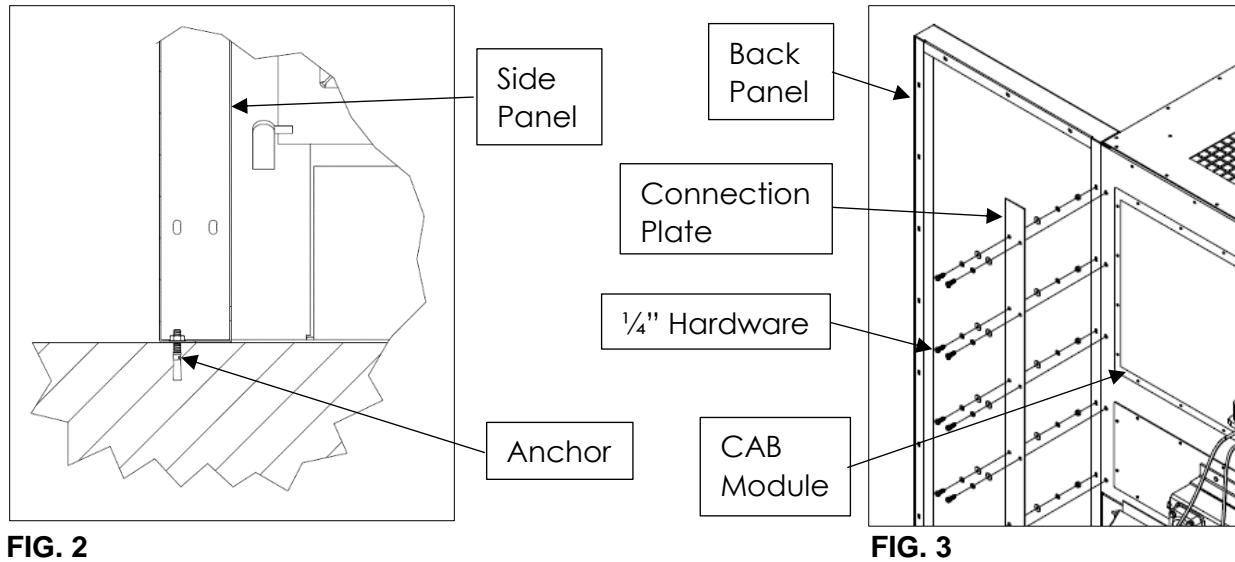
**2.** Assemble top panels together (Skip this step for 8' W booths). The top panel assemblies consist of two panels. The outside edge of the panel is 5.25" to the center of the mounting slot. The inside edge is 4.00" to the center of the mounting slot. The outside edges of the panels do not have any mounting slots (see **FIG. 4**). The inside ends of each top panel are bolted together in three places. If the top panels are insulated, bolt through the holes' nearest flange (See **FIG. 5**). Make sure sides of panels lay flush with each other.



**FIG. 4**
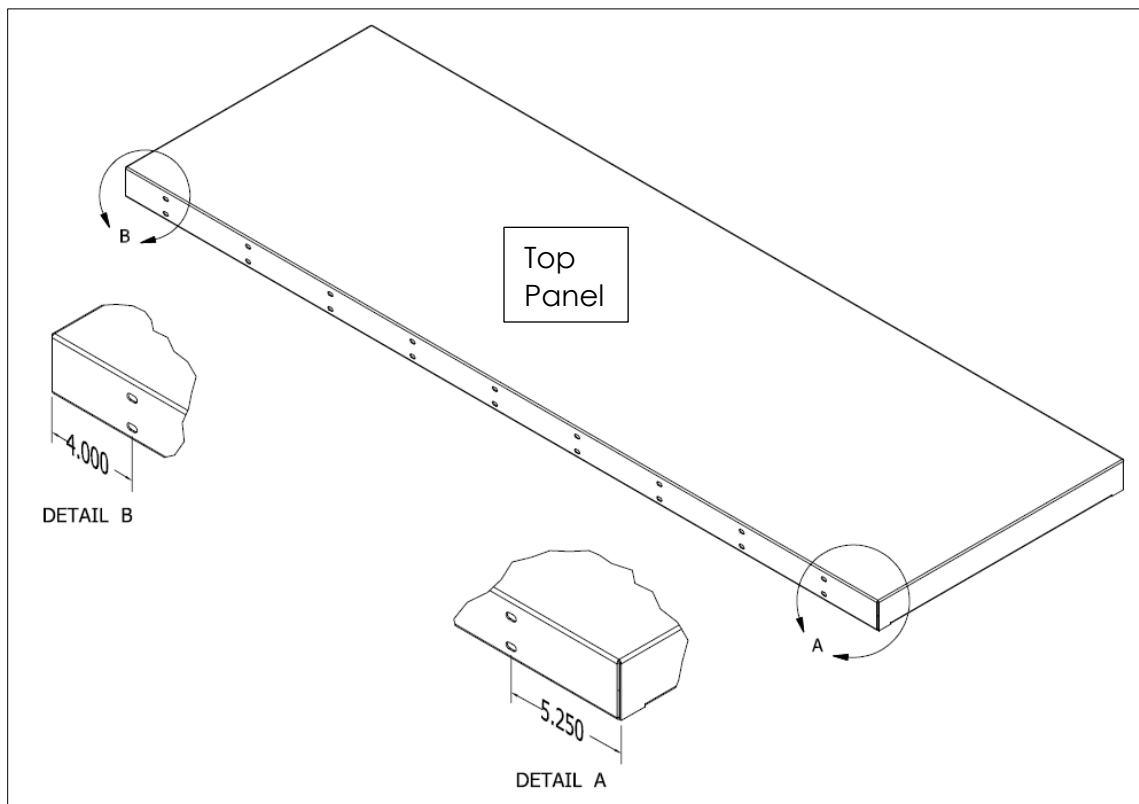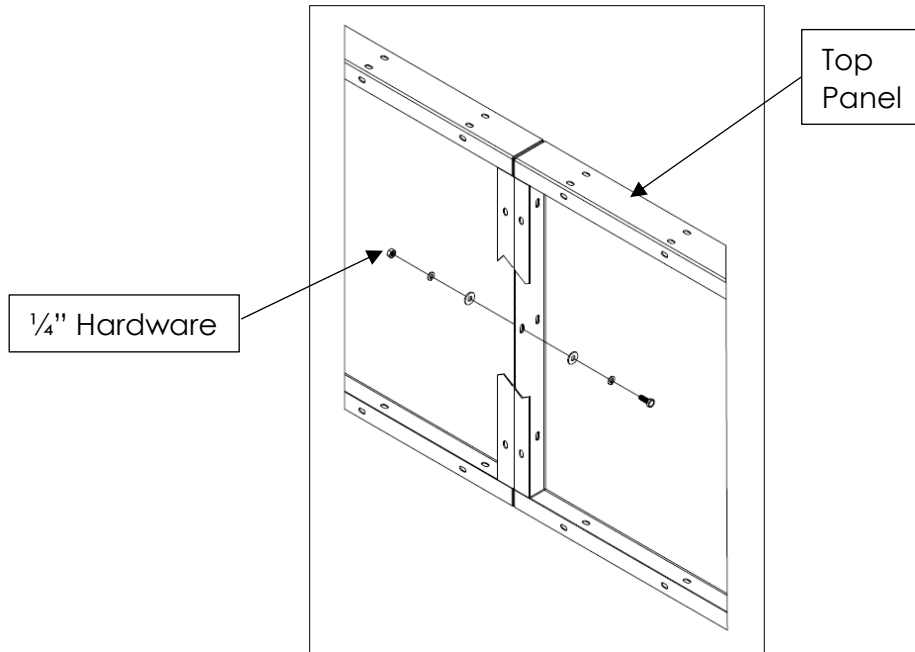
**FIG. 5**

**NOTE:** For the 12' W booth with regain, the regain portion of the top panel assembly will consist of 3 top panels bolted together. The outer panels are 48.25" wide each and the mid panel is 50.00" wide. The distance between mounting slots is 8.00" in the middle. The outside panels do not have mounting slots (See **FIG. 6**).
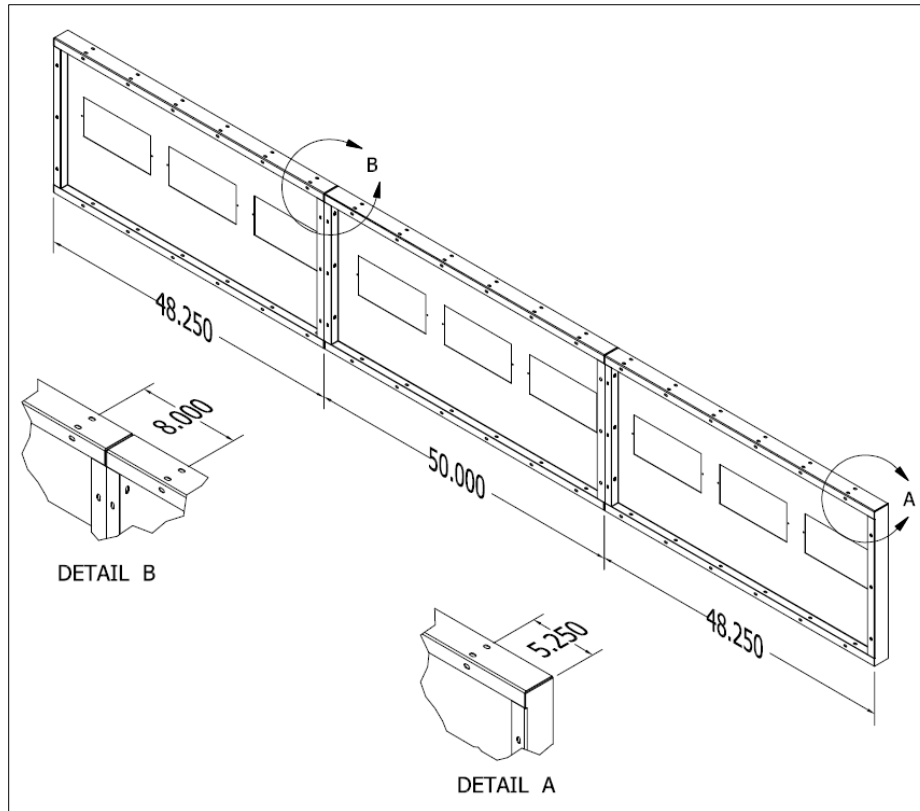


**FIG. 6**

**3.** Seat horizontal supports at the front of the top panel segment (Skip this step for 8' W booths). Bolt together the horizontal supports with the horizontal support brace (12 bolts total, see **FIG. 7**).

   **NOTE:** The horizontal support braces will have holes on the top flange. 8' W booths do not include horizontal support braces.



Horizontal Support

¼" Hardware

Horizontal Support Brace
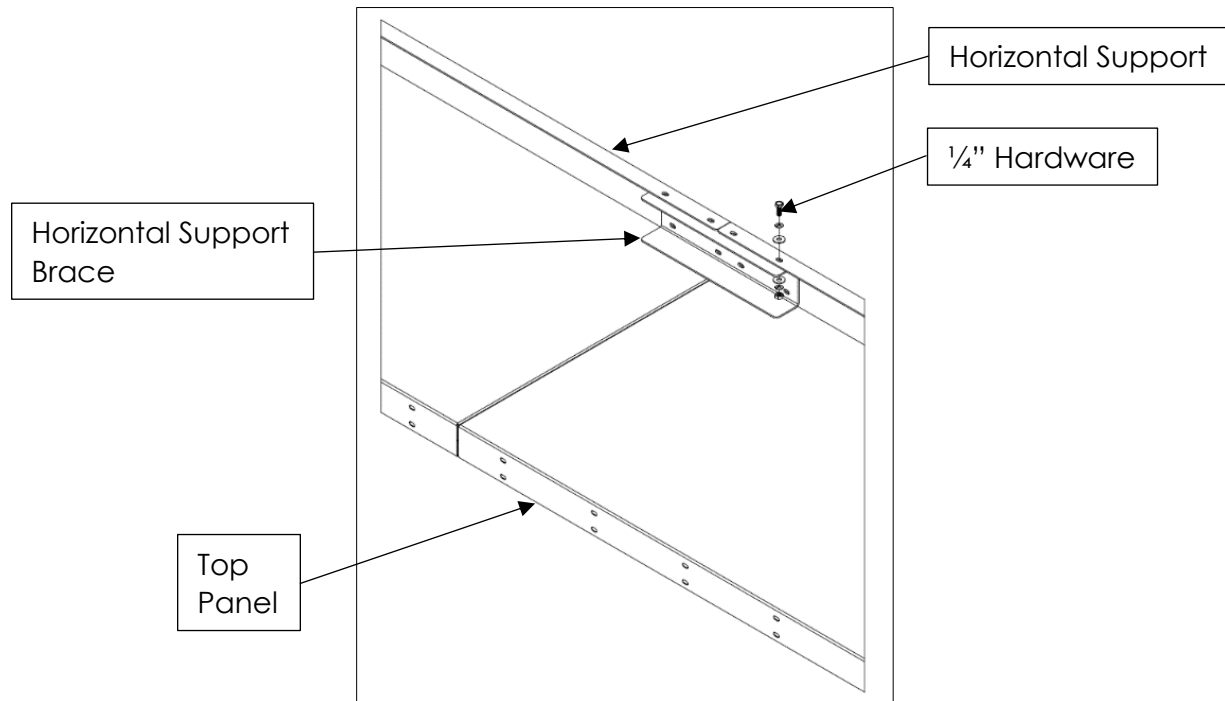
Top Panel

**FIG. 7**

**4.** With top panel segment and support braces together, use c-clamp pliers to hold assembly together prior to transfer onto the CAB module and side panels (see **FIG. 8**). If no c-clamps are available it is possible to use bolts and nuts provided to keep the assembly secure but they will need to be removed prior to bolting on the next top panel segments (see **FIG. 9**).

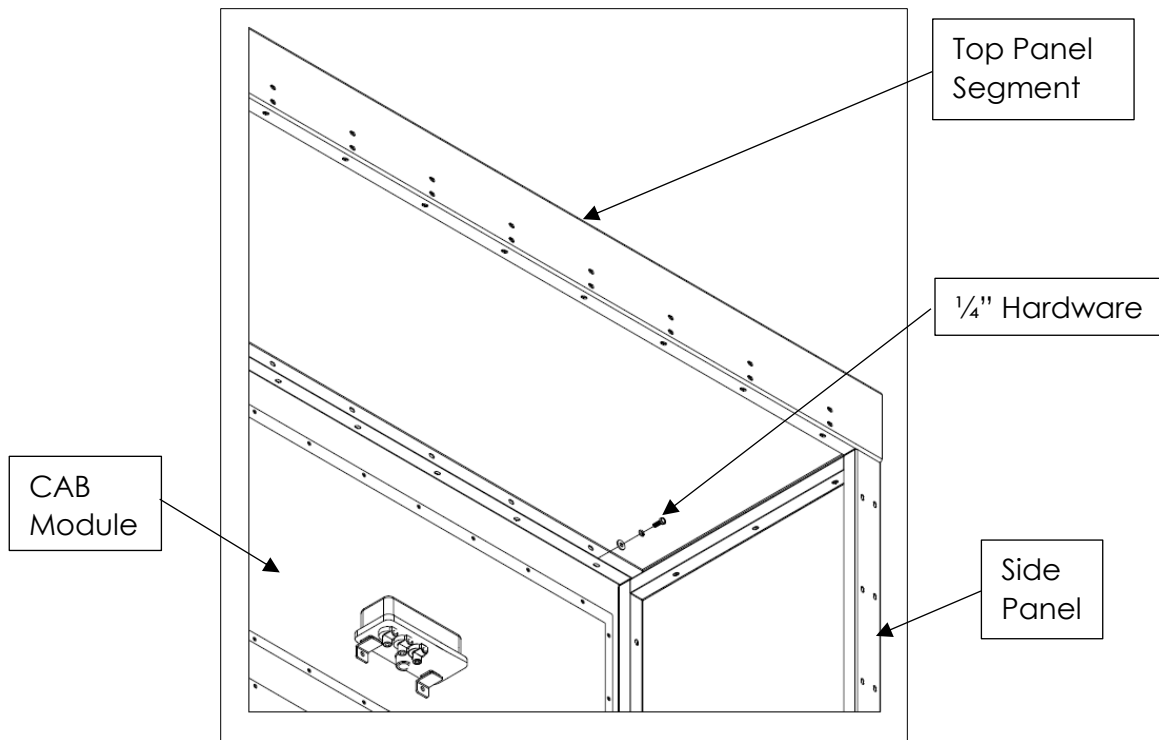   **NOTE:** For ease of assembly it is suggest to assemble each top panel segment in front of CAB/BOOTH unit.
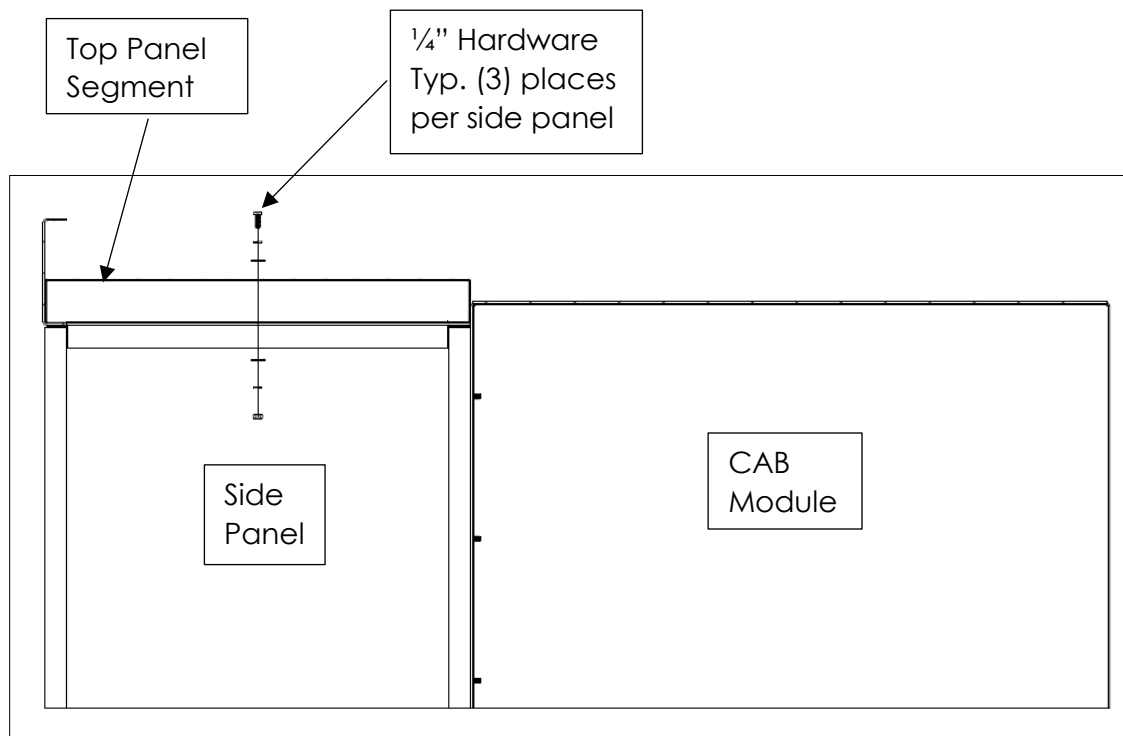


Horizontal Support

Top Panel

C-clamp Pliers
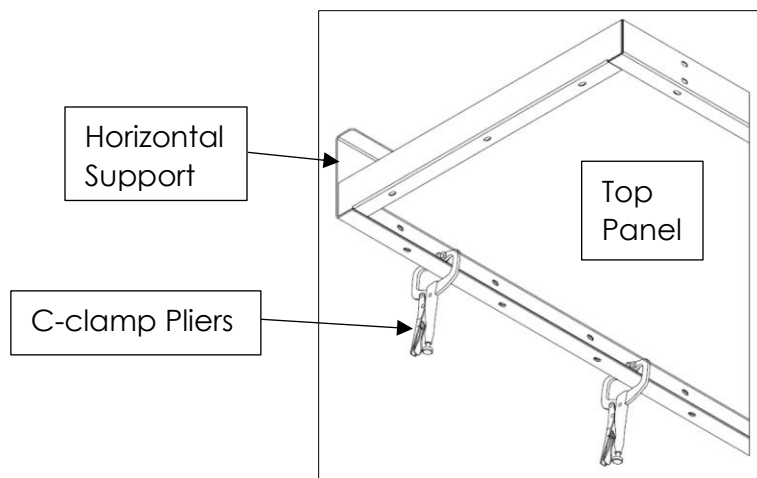
**FIG. 8**
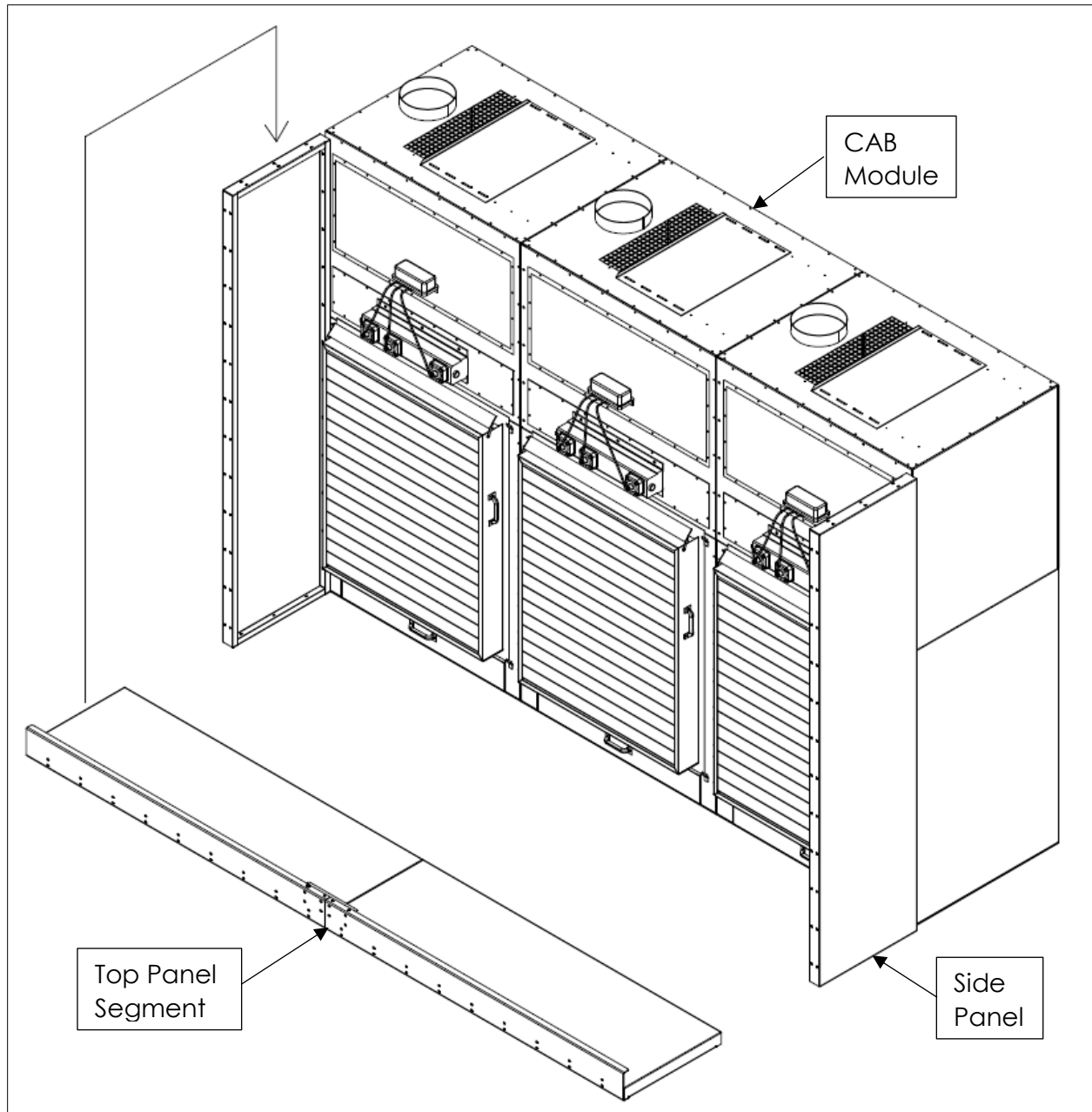
**FIG. 9**

**5.** Once the top panel is set flush on the side panels, bolt to the CAB module and panels (see **FIGS. 10, 11**). The top panel assembly will bolt to the CAB module and in the side panels. Make sure to bolt through holes located nearest inside flange of panels.

**Note:** Do not tighten bolts of the top panel segment until next top panel segment is in place.

Top Panel
Segment

¼" Hardware

CAB
Module

Side
Panel

**FIG. 10**

Top Panel
Segment

¼" Hardware
Typ. (3) places
per side panel

CAB
Module

Side
Panel

**FIG. 11**

6. Bolt the next set of side panels to the booth. These side panels are joined with the vertical supports. Make sure the flange on the vertical support sits on the outside of the side panels (see **FIGS. 12, 13**).
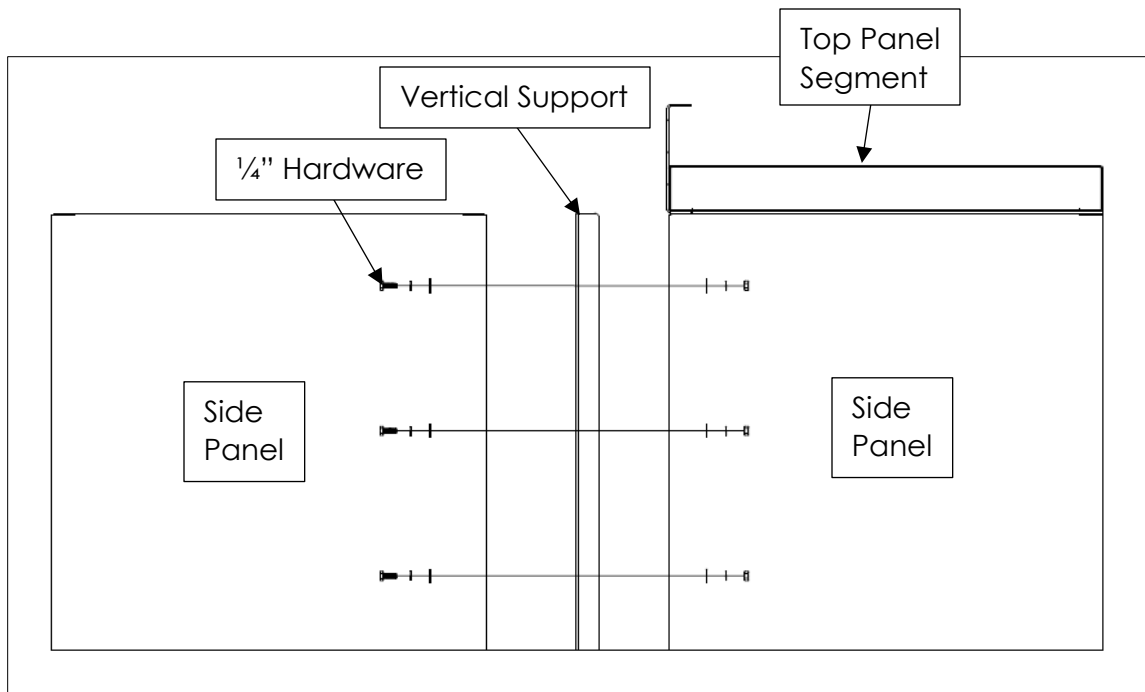
**FIG. 12**
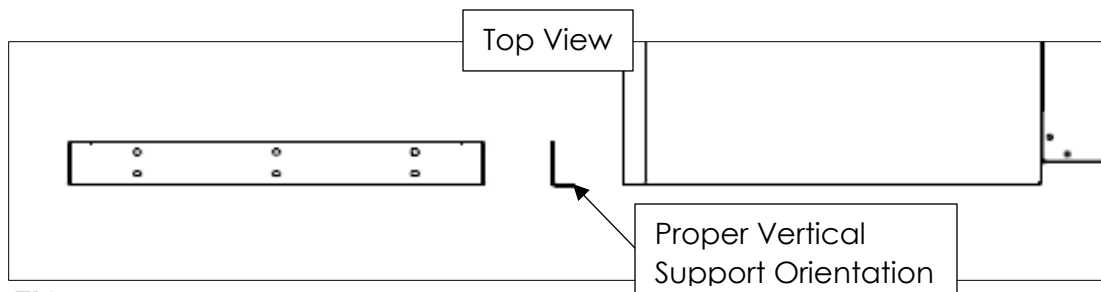
**FIG. 13**

7. Assemble and install the next top panel segment following steps 2-5.
   When aligning horizontal supports use hammer or mallet to tap edge into place
   Assemble side panels and vertical supports following step 6.
   Repeat process 2 more times.
   Tighten down all bolts once all panels and braces have been installed.

   **NOTE:** The last top panel segment that will go on the booth will use two Header beams (8' W booths only utilize one Header beam), and the Header Brace in lieu of the horizontal support and horizontal brace. The header brace is bolted onto both headers with 12 bolts and bolted to the top panels through the bottom side (see **Figs. 14, 15, 16**).
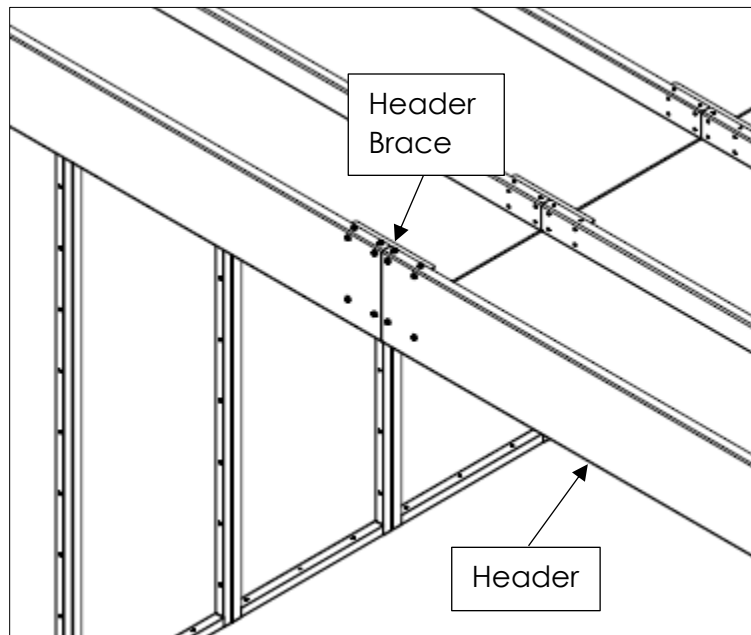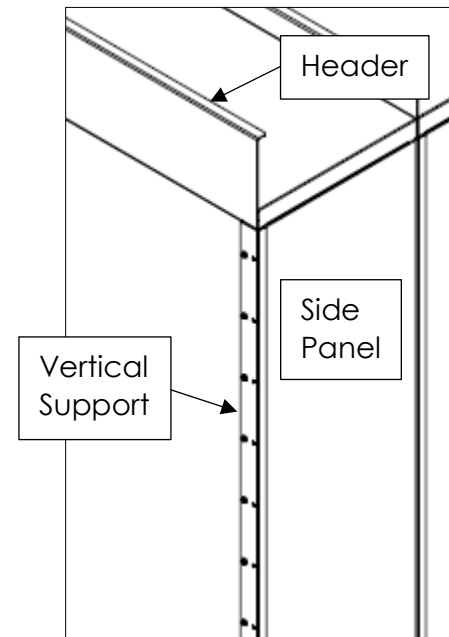
Header Brace

Header

**FIG. 14**

Header

Side Panel

Vertical Support

**FIG. 15**

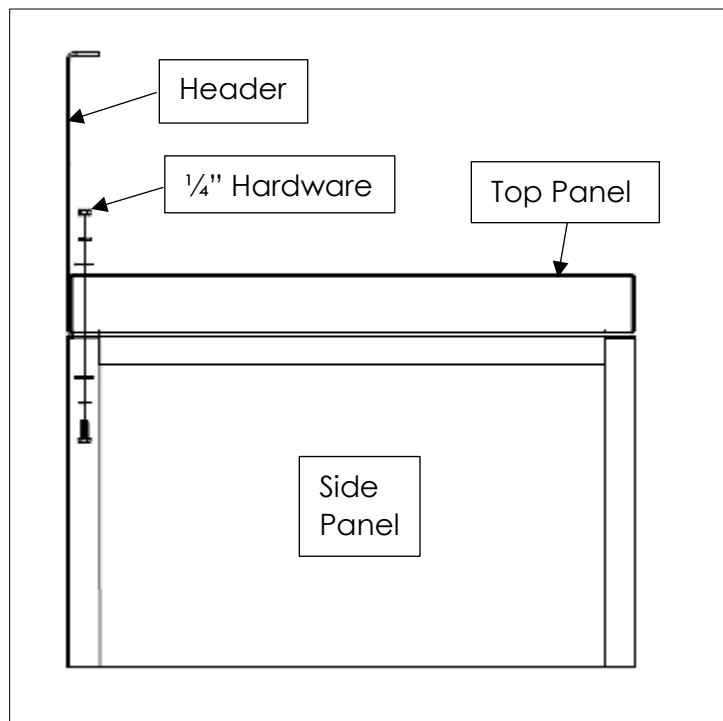Header

¼" Hardware

Top Panel

Side Panel

**FIG. 16**

**REGAIN**

**NOTE:** HEPA filtration is recommended for use with ALL Regain applications

1.  Remove parts from packaging and inspect for any possible damage incurred during shipping.
2.  Set the Regain module on top of the booth.
3.  Using the provided self-drilling/self-tapping screws, attach the Regain module to the regain panel (see **FIG. 17**).
4.  Mount the grilles on the Regain panel with the provided hardware. The vanes of the grille can be redirected slightly to adjust Regain airflow.
5.  Once the regain assembly is installed, connect the 10" hose between the regain adjustment plate can be moved to provide the best return air flow for your particular application.

   **NOTE:** It is recommended to install the Regain assembly through the collar opening on the assembly. For insulated booths, the Regain grilles will be installed on the panels. For un-insulated booths, use hardware provided in register package to install to top panel.
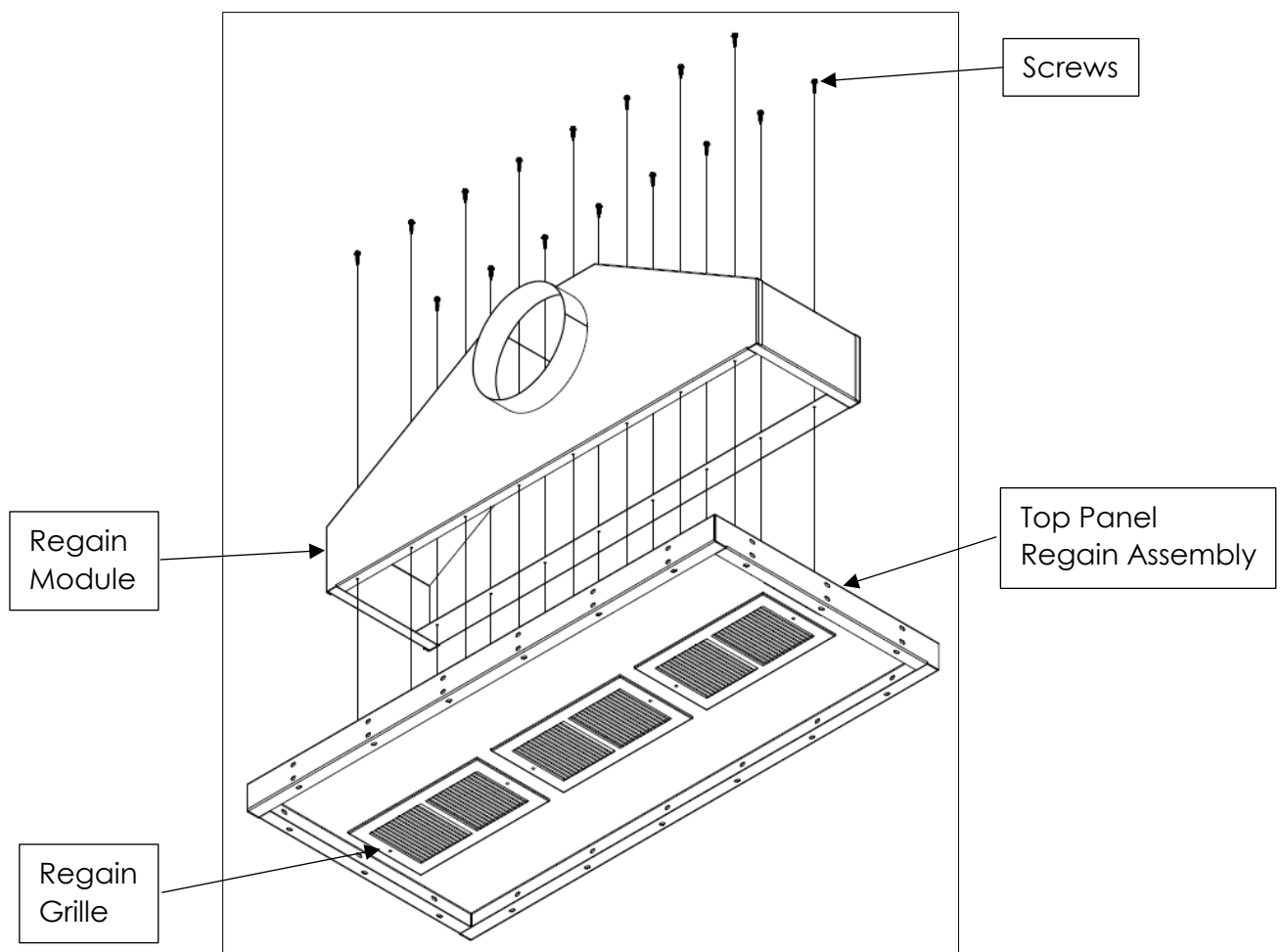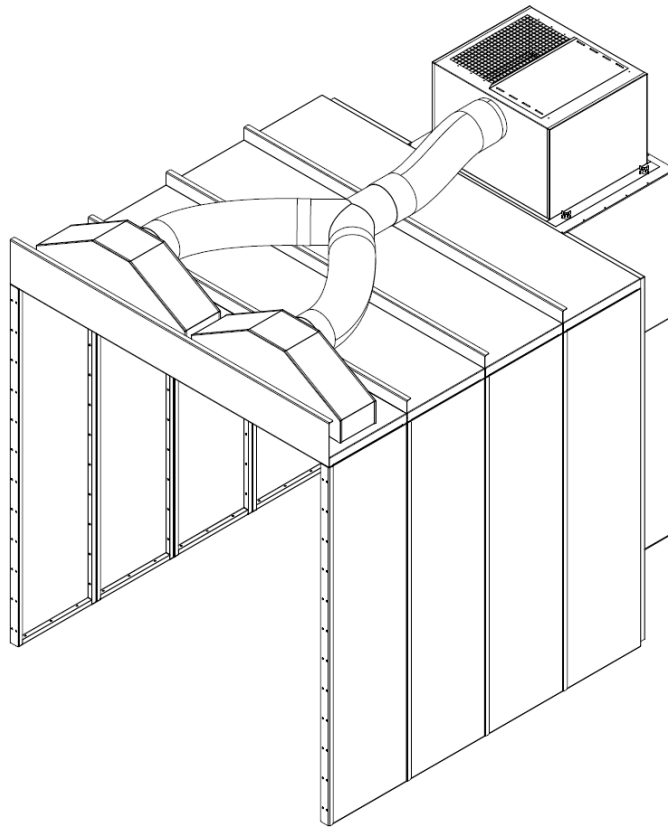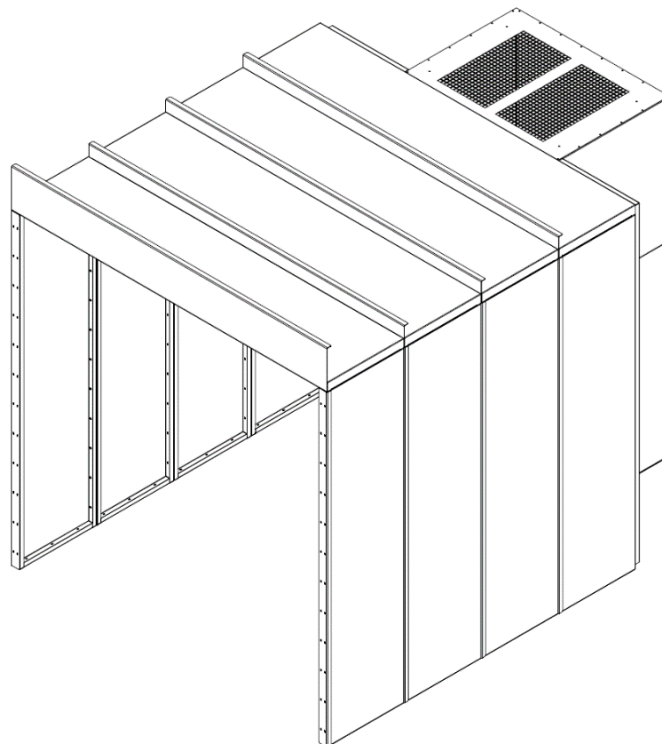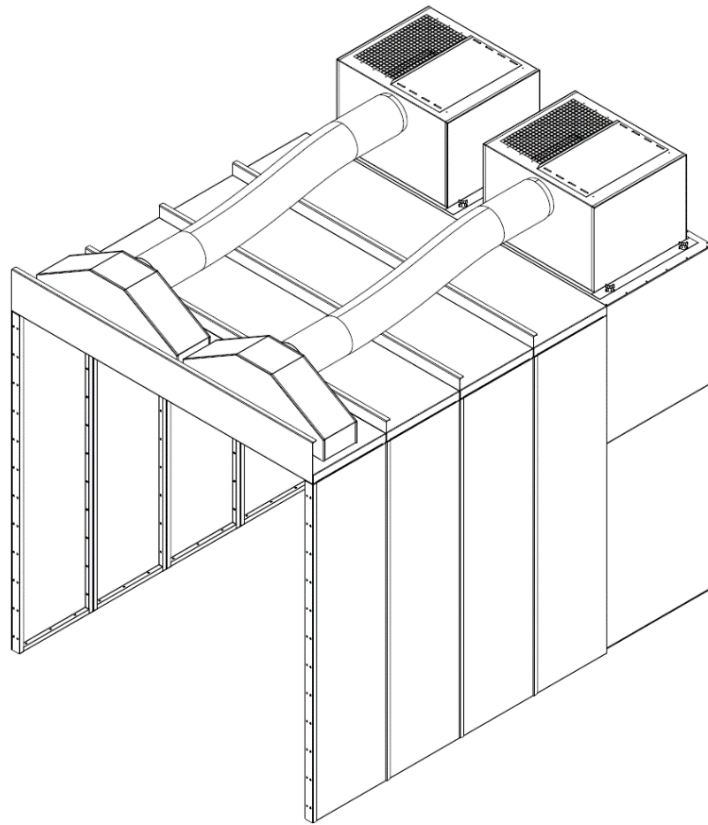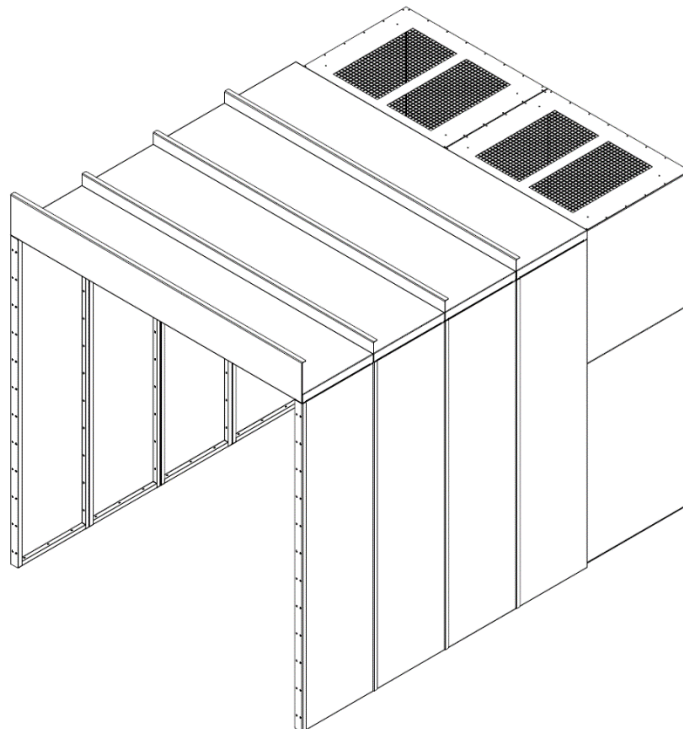


**FIG. 17**

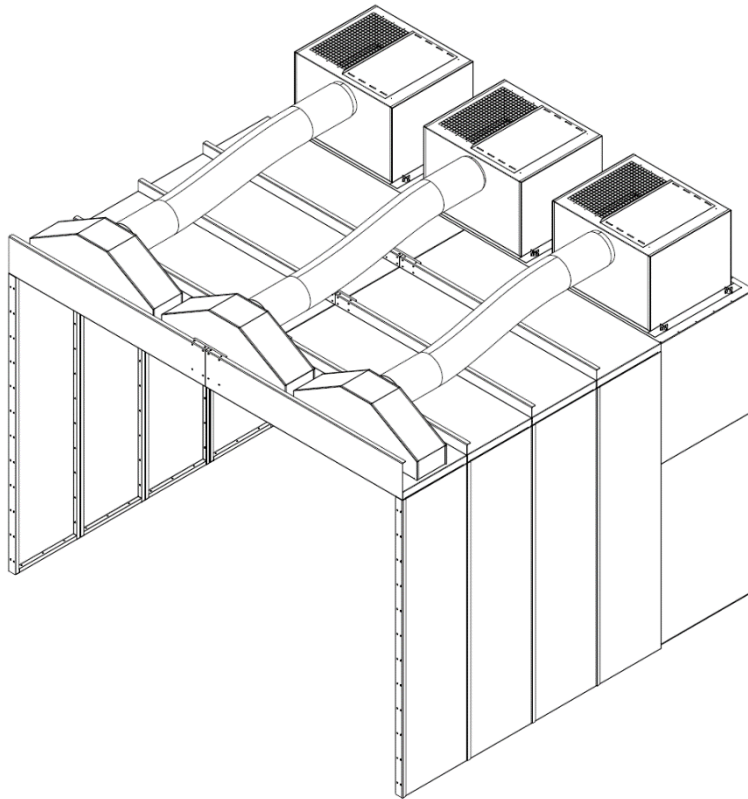**CABIR1-888 & CABUR1-888**

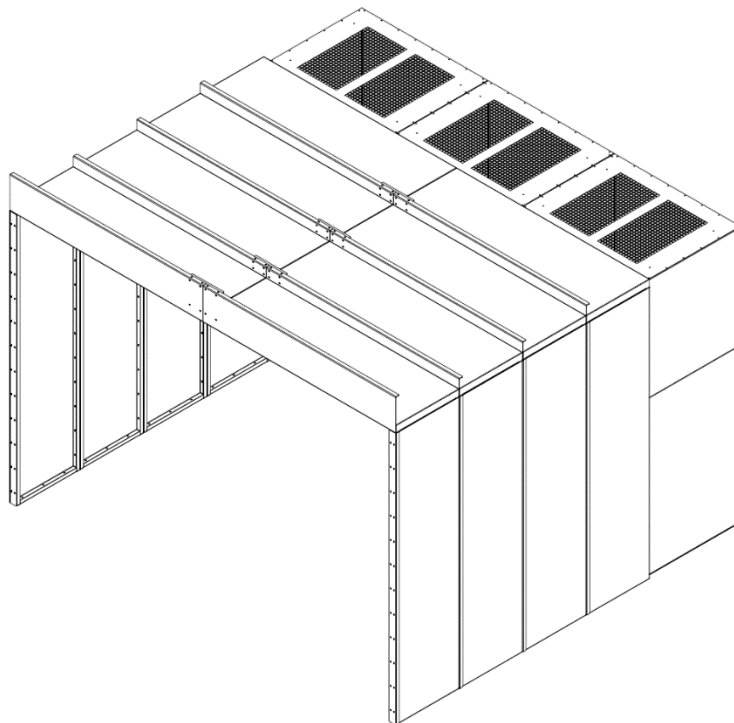**CABIN1-888 & CABUN1-888**
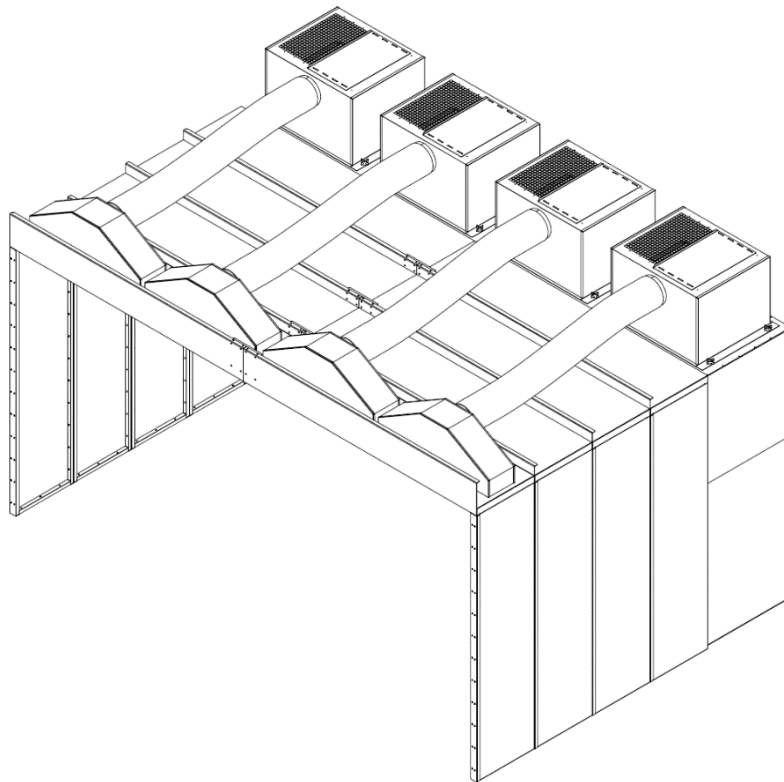
**CABIR2-888 & CABUR2-888**



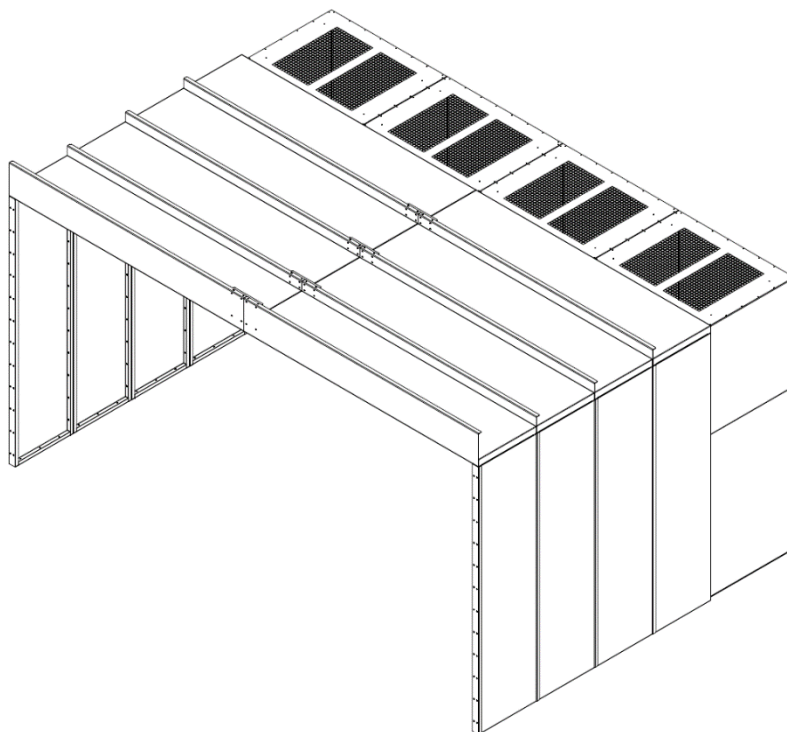**CABIN2-888 & CABUN2-888**

**CABIR3-1288 & CABUR3-1288**



**CABIN3-1288 & CABUN3-1288**

**CABIR4-1688 & CABUR4-1688**



**CABIN4-1688 & CABUN4-1688**

**NOTES**

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