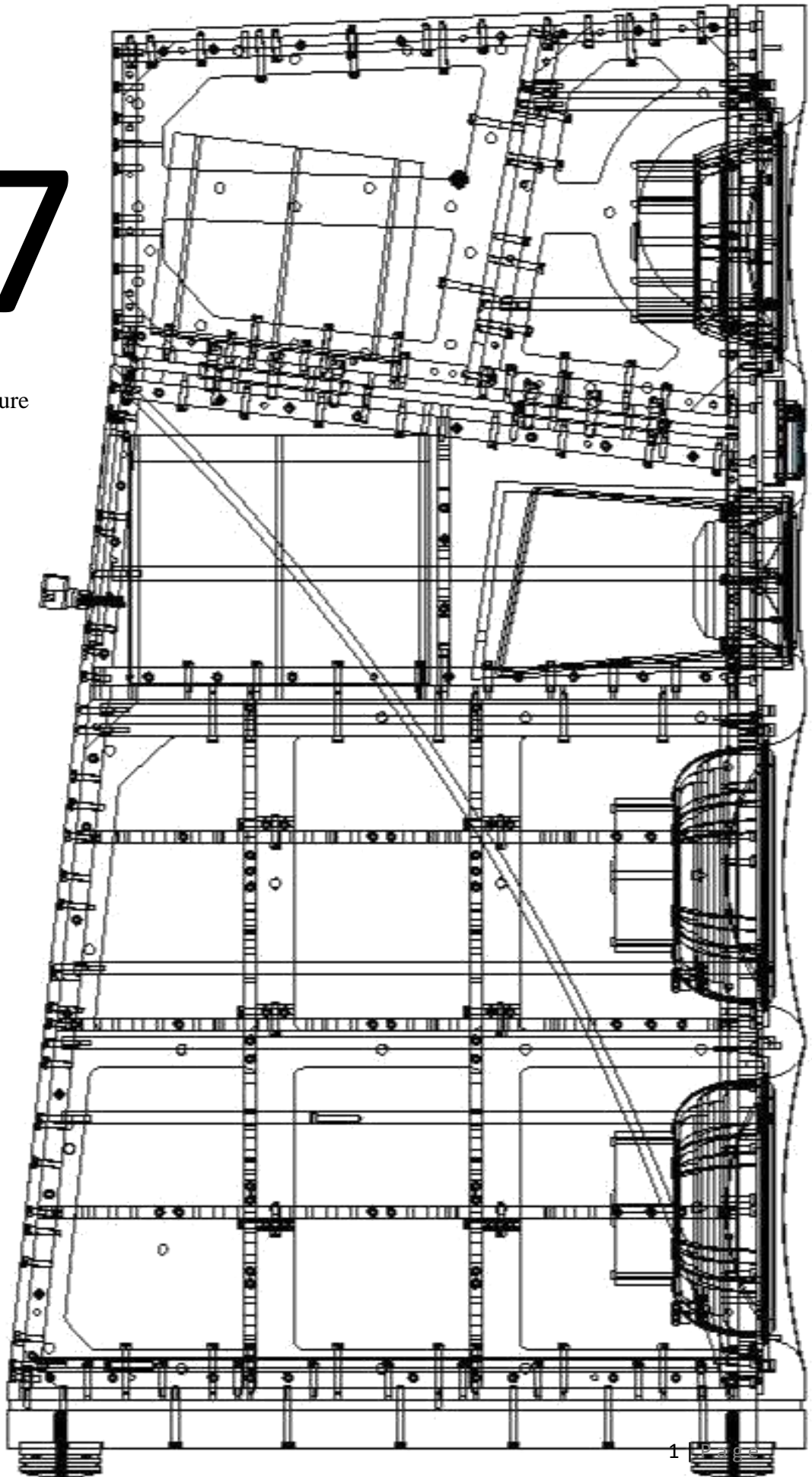


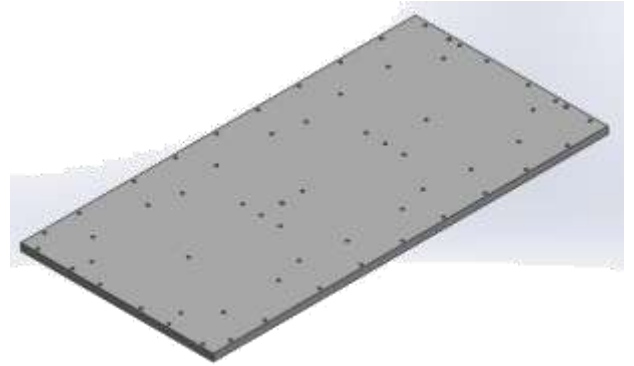
Q7

Assembly Procedure



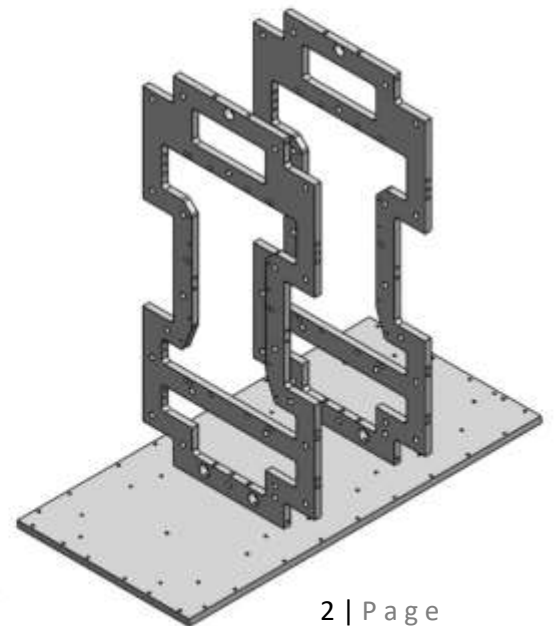
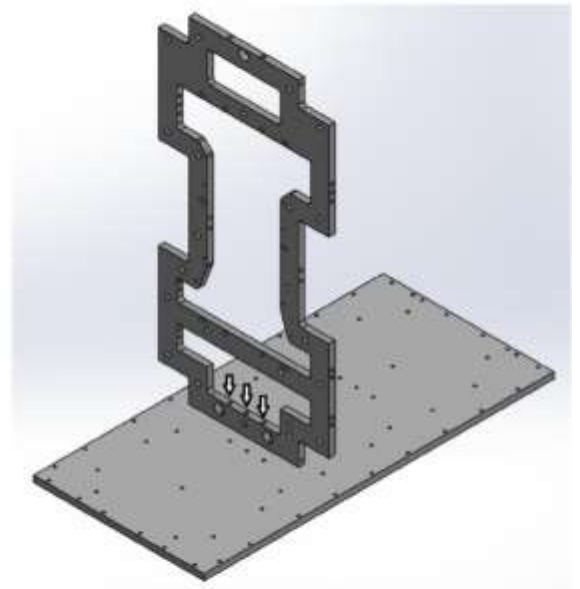
Locate the Q7-10 Base Plate. Note that the side with the beveled edge will be the back/rear of the cabinet. It may be a good idea to label this side as “rear.”

Remember any fasteners that go into this base plate will be 2” ¼-20 fasteners with washers and red Loctite.



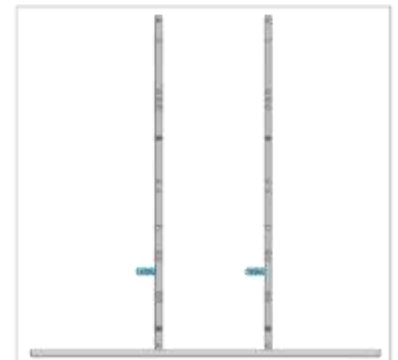
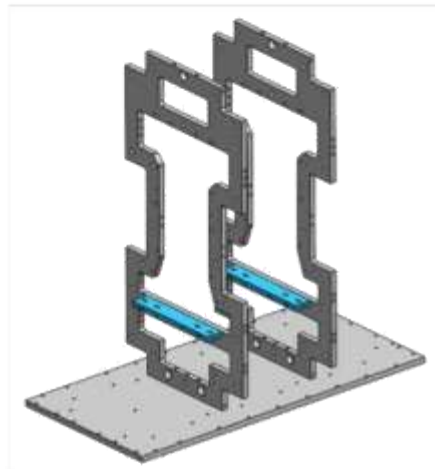
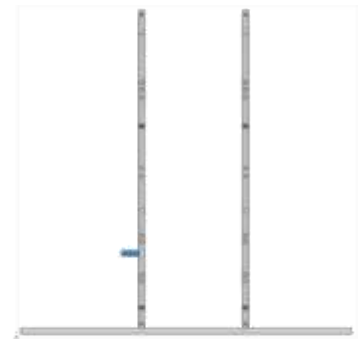
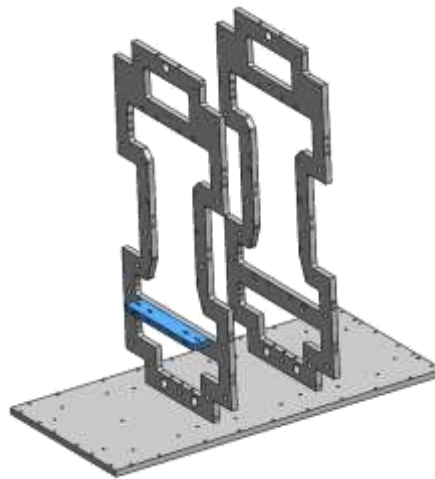
Locate the (2x) Q7-06 Braces. You will fasten each of these down to the Q7-10 plate. Notice the orientation of the braces. The small window cut out of the top of the brace and the (2) through holes at the top. The bottom side, which has (3) through holes is the side that will mount to the Base Plate.

Fasten these braces down with (x3) 2” ¼-20 fasteners with washers and red Loctite.

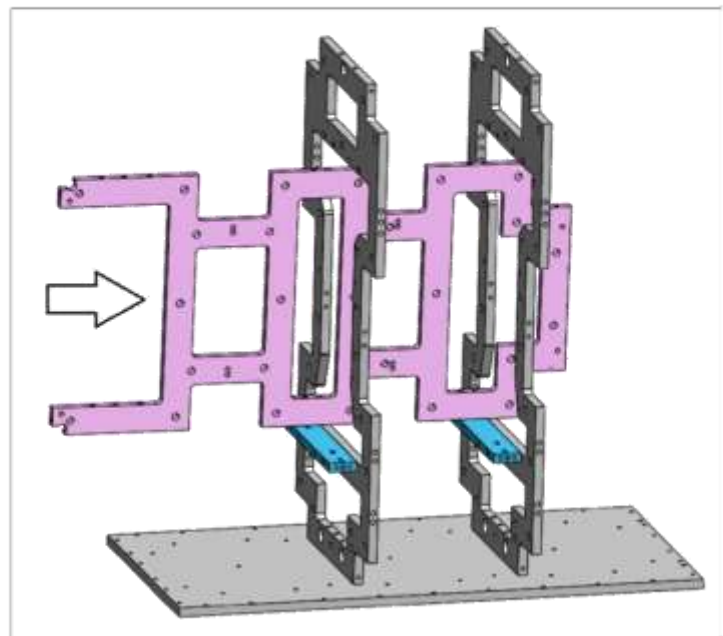


Locate the Q7-65 Short Rails (Blue). You should have 6 rails total, (4) of these short rails are to be kept as is. The remaining (2) rails will need to have their inner threaded holes drilled out with an F bit. The drilled out rail will be mounted in the “center” of these -06 braces. To start, attach the -65 rails to the -06 braces as shown in the images to the right. These rails should be fastened down with 7/8” ¼-20 fasteners with washers and red Loctite. Use (4) fasteners per rail except for the center rail in which you should use

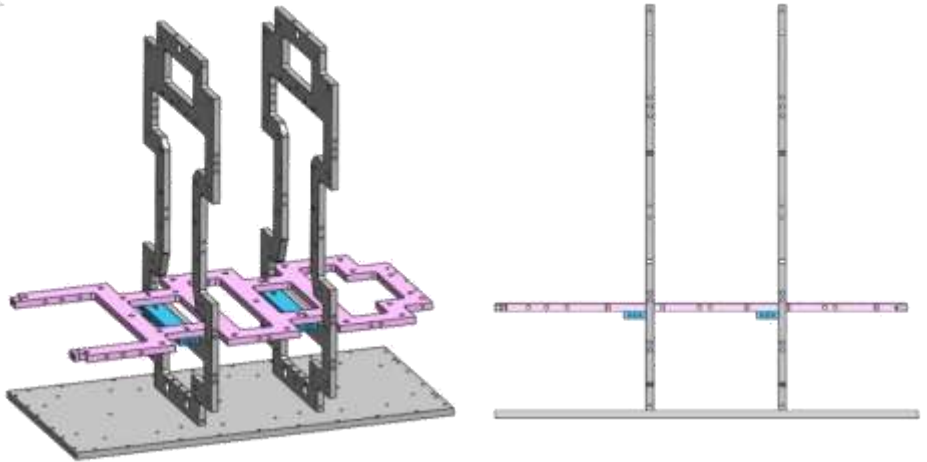
(2).



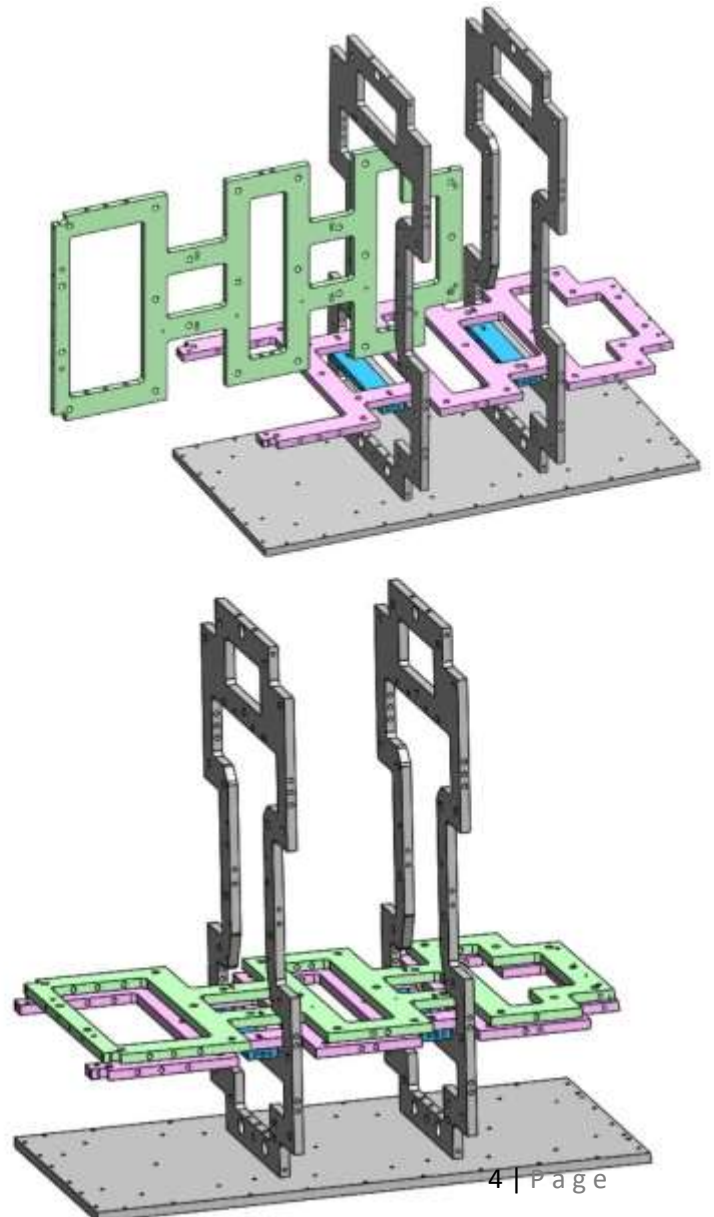
Next install the Q7-03 Brace (Pink). This will have to slide in sideways and be inserted through the (2) Q7-06s. Once through, the cut-outs in the -03 brace should line up with the -06 braces.



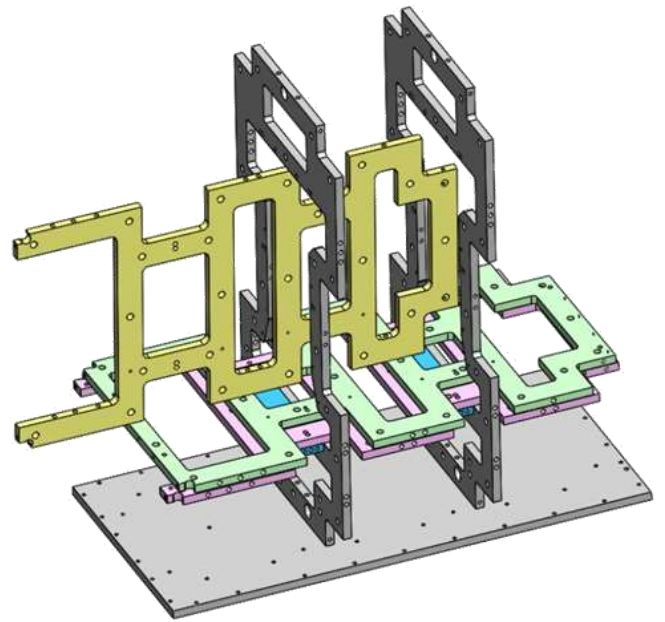
Use the angled edge on the end of this brace to find the braces orientation. The longer edge (the leading edge) should be facing down, both should be facing to the rear of the cabinet. Fasten the Q7-03 down to the -65s with 7/8" 1/4-20 fasteners with washers and red Loctite.



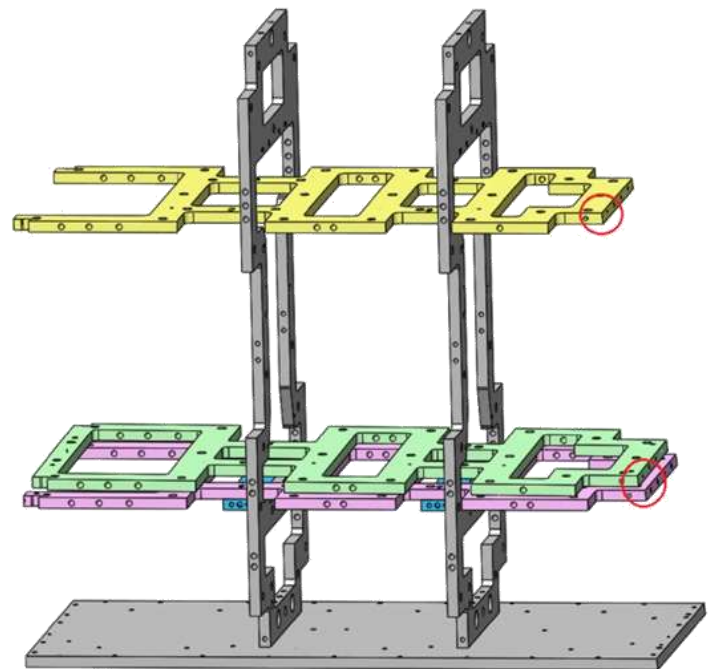
Locate the Q7-02 (Mint) Brace. Find the side of it with the chamfered/beveled edge. Slide this brace in to the -06 braces and lay it down flat on top of the Q7-03. Do not fasten this piece down yet. For now, simply leave this brace here.



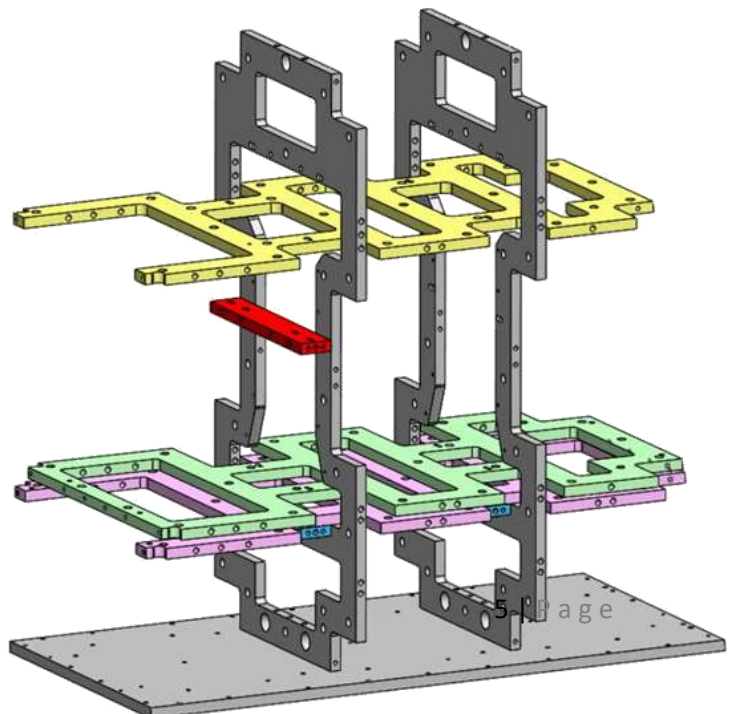
Locate the Q7-05 Brace (Yellow). Slide it in through the -06 braces. Instead of resting this brace on top of the others, lift this brace up and turn it sideways, allowing it to rest on the inner edges of the -06 braces.



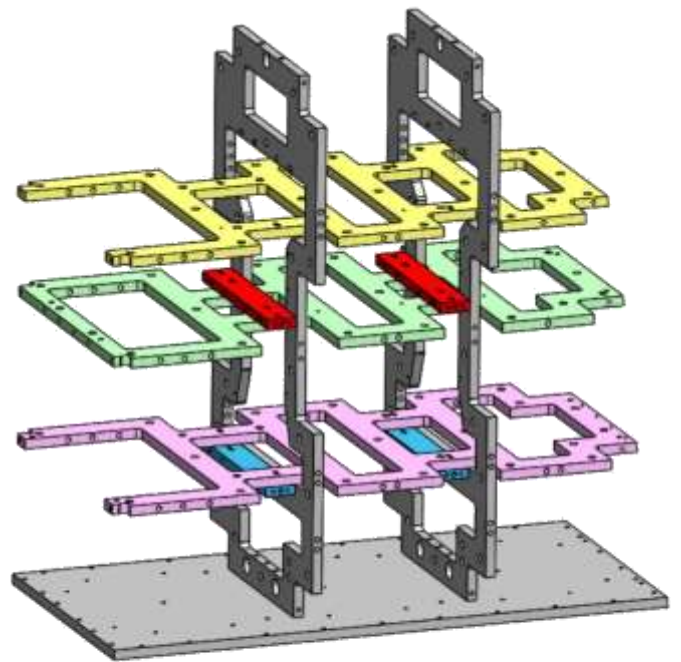
Check all braces to insure that every brace has a beveled or chamfered edge and that are angled in the same direction. Each brace should be angled like so \



Now install the (2) drilled Q7-65s (Red) at the midway point of the -06 braces. The -65s can be fastened with 7/8" 1/4-20 fasteners with washers and red Loctite.

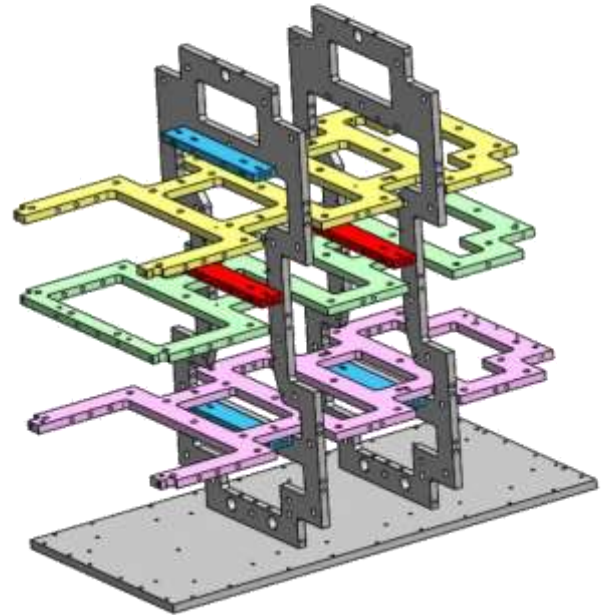


Once both of the -65s are installed, bring the Q7-02 up and mate it to the two -65's using 7/8" ¼-20 fasteners with washers and red Loctite.

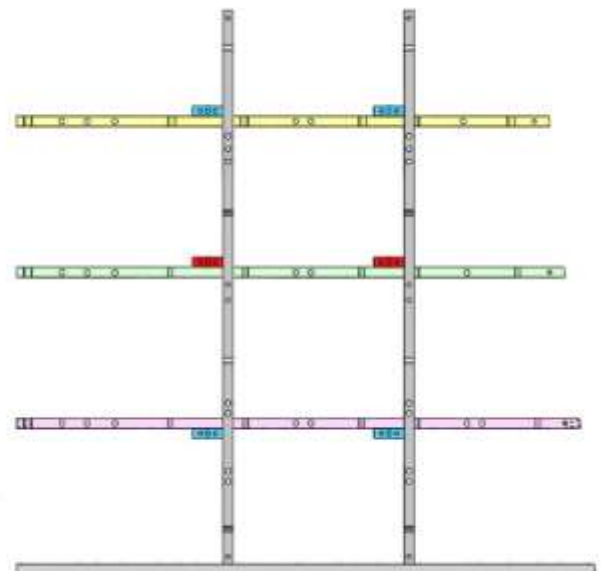
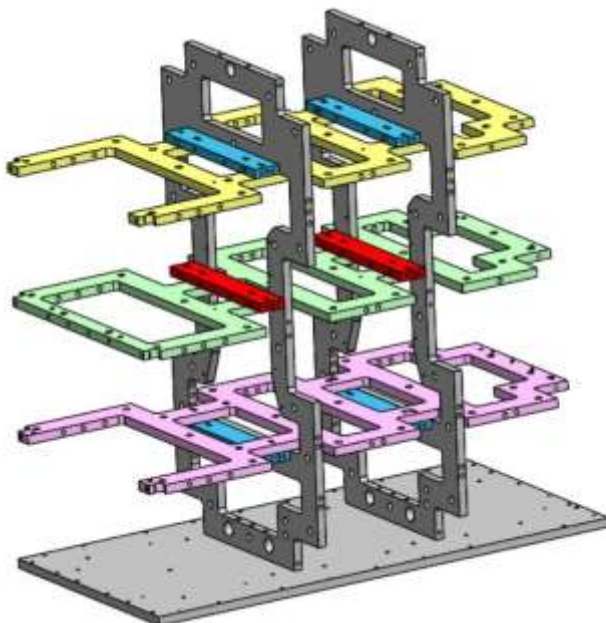


Install the last two undrilled Q7-65s (Blue) to the -06s at the uppermost mounting point. Fasten with 7/8" ¼-20 fasteners with washers and red Loctite.

Lift the Q7-05 and fasten it to the two undrilled Q7-65s. Fasten all together with 7/8" ¼-20 fasteners with washers and red Loctite.



Look at assembly from the side. Make sure all chamfered edges line up. Make sure the front side of the speaker has each brace lining up flush to the front of the baseplate. You can now lay this assembly on its side (on a table).

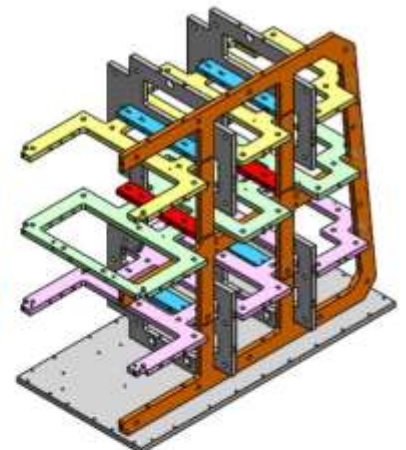
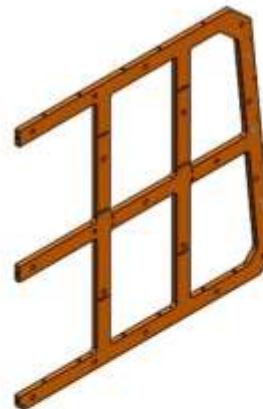
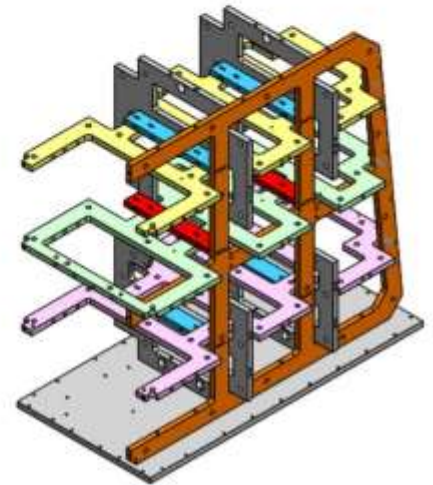
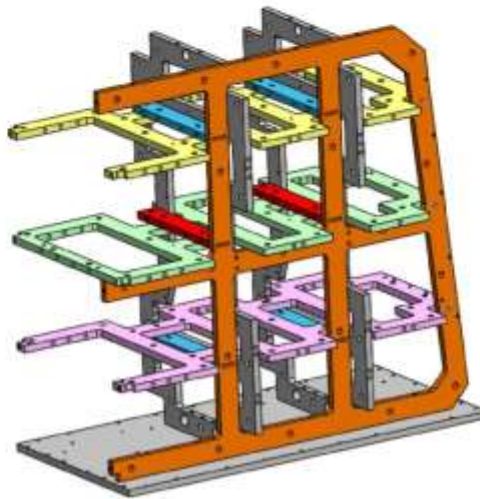
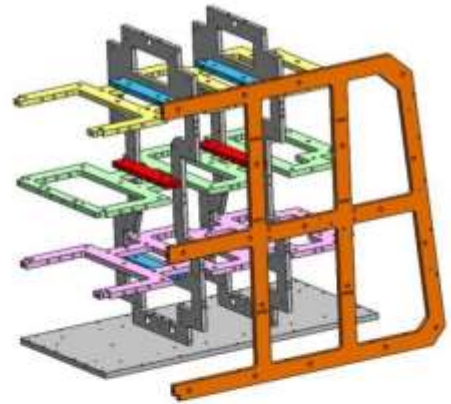


Locate the Q7-04 (shown in orange). Place the -04 in the skeleton assembly. Before fastening down the -04 make sure all braces are flush with the -04 and that everything lines up. The -04 is a good indicator when a brace is not flush, it will “stand out” amongst others. The trick to fixing these braces will be to use a power clamp.

Use the power clamp to force a brace to sit flush with the -04, once flush, fasten the -04 to the skeleton assembly. There is a chance that the power clamp will not be effective. In these cases, you will have to loosen the fasteners on the -65 braces and adjust the questionable brace.

Once this has been done, you will flip the skeleton assembly up and over and install an -04 on the opposite side. Fasten the -04s to the skeleton assembly with $7/8''$ $1/4$ -20 fasteners with washers and red Loctite.

Fasten -04s to -10 plate with $1/4$ -20 2" fasteners with washers and red Loctite.

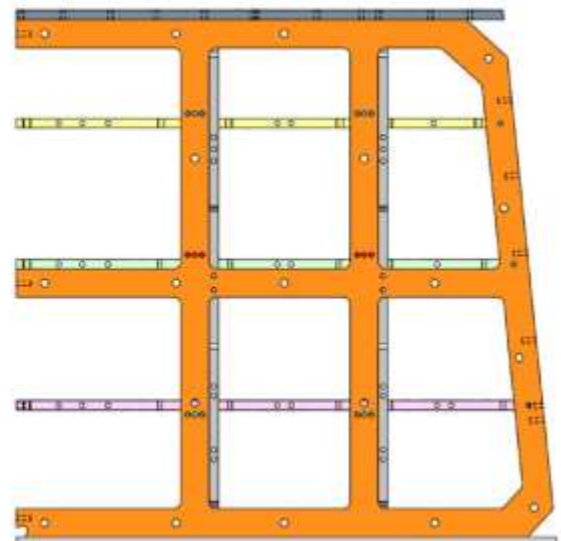
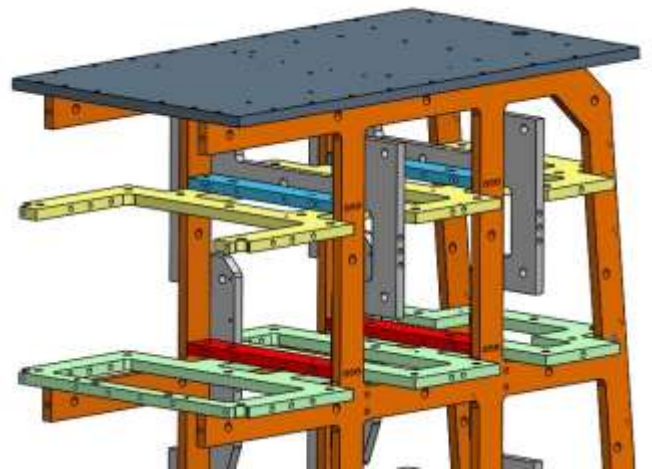
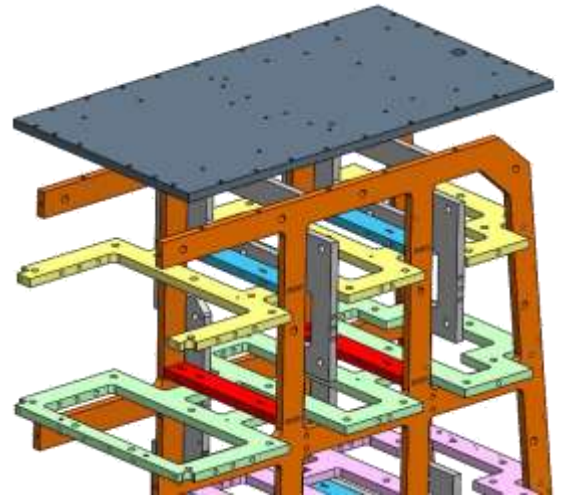


Grab the Q7-14 plate. Take note, this plate has a large hole cut out of one side, it should be on its chamfered side. This indicates the rear/back side of the cabinet.

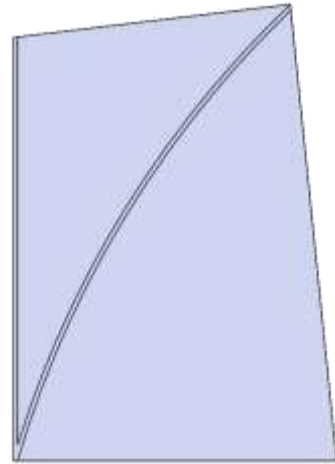
Make this plate flush with the front of the -04 braces before fastening down tight with 2" ¼-20 fasteners with washers and red Loctite. Fasteners should come from the -04 up in to the -14 plate and from the -06 up in the -14.

Don't forget the ¼-20 2" fasteners going up into the center of the plate.

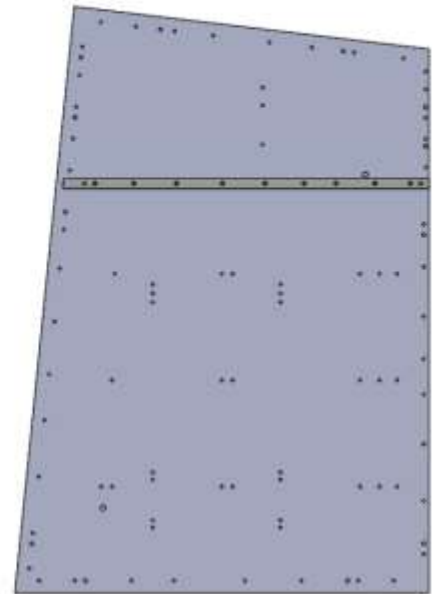
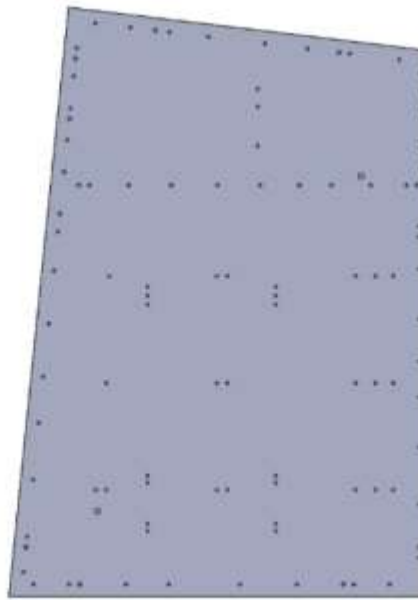
You should be able to stand the skeleton assembly up now. Check your work against the model shown to the right.



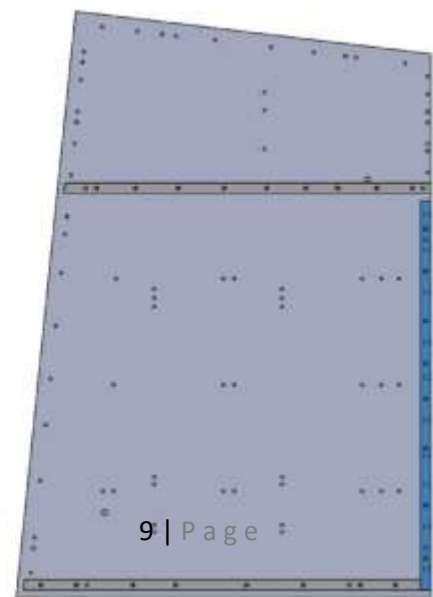
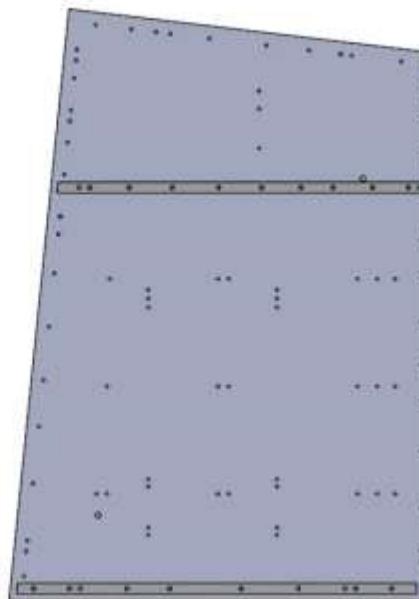
Unwrap and QC the Q7-17. Check the rabbit, check corners, and check every edge for damage to the finish. If everything passes and looks good, you will put it down on a clean table with foam and paper, finished side down.



Locate the Q7-32 frame batten. Install this frame batten on the Q7-17. Before fastening the batten down, make sure it is flush against the front side of the cabinet, which will be the non-angled side. Fasten battens with a 3/4" 1/4-20 fastener with washers and red Loctite.



Next up is the Q7-43 frame batten. This frame batten should be installed near the bottom of the -17 plate. Positioning this batten is a bit tricky, to find its ideal location, use a Q7-40, flush up against the front/non-angled side of the -17, and then position the -43 batten flush to the bottom side of the -40. Fasten battens with a 3/4" 1/4-20 fastener with washers and red Loctite.



Remove the -40 batten that was being used for positioning reasons. Apply a bead of sealant to the lower/bottom-side corners of the Q7-32 and Q7-43.

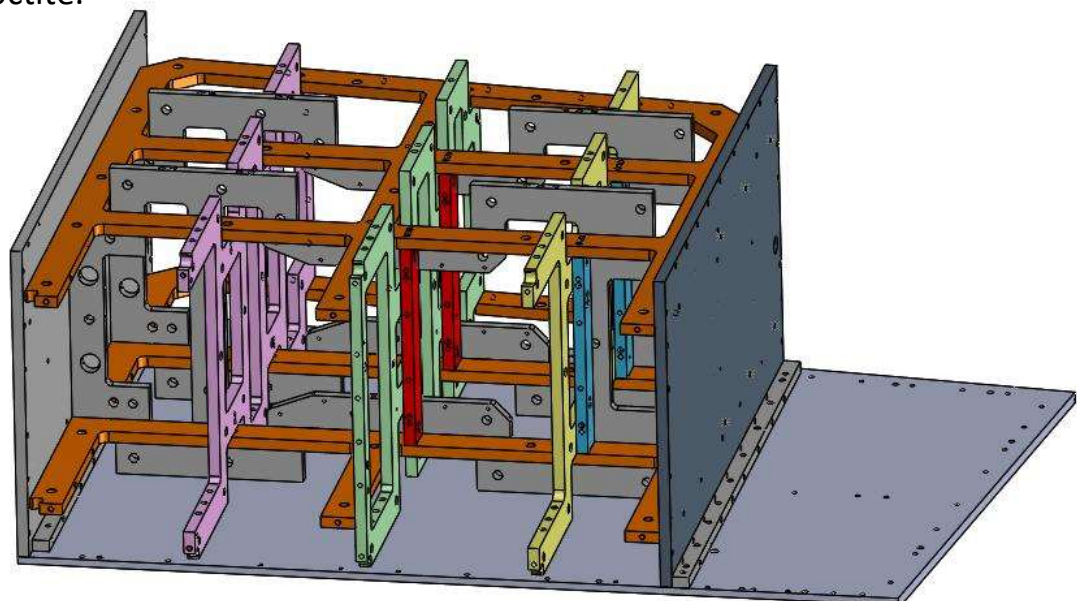
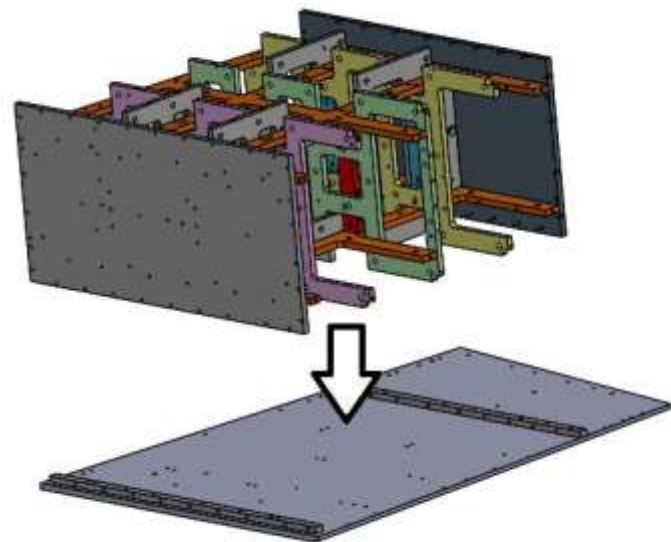
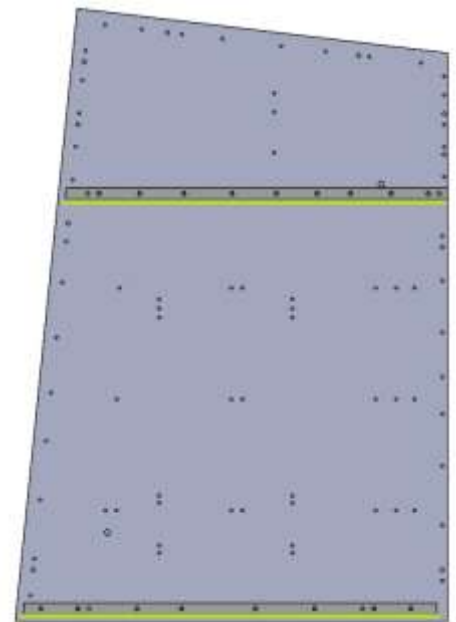
With the help of a strong tough-guy, lift the skeleton assembly up and CAREFULLY plate it down on the Q7-17. Both the baseplate (Q7-10) and lower top plate (Q7-14) should press against the sealant and press up against the two battens (Q7-32 and Q7-43).

Use small clamps on front and back side to clamp the baseplate to these battens. You may need a mallet to tap skeleton flush against battens.

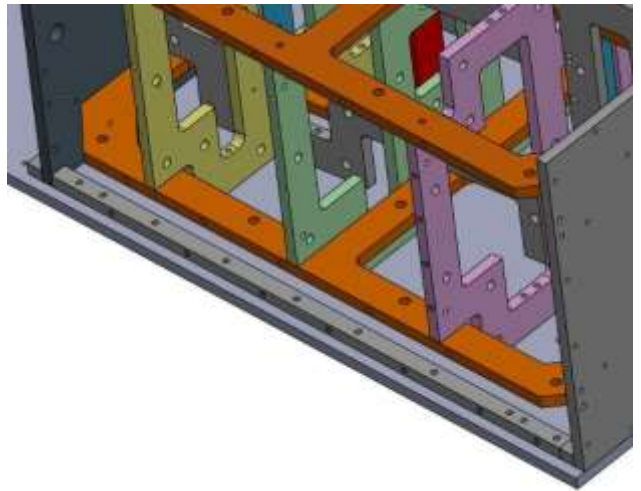
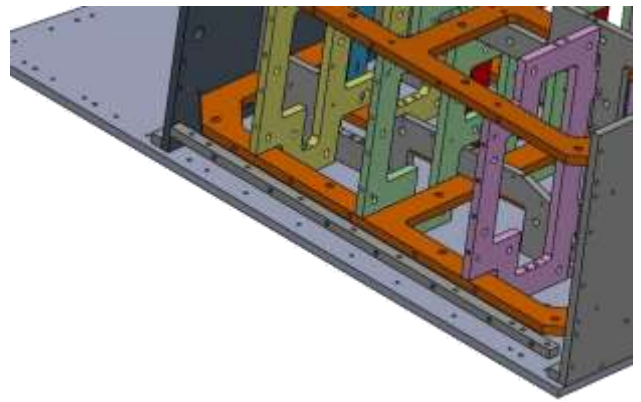
Flush the skeleton assembly to the front of the Q7-17.

Fasten the skeleton to the -32 and -43 battens with 1 1/8" 1/4-20 fasteners with washers and red Loctite.

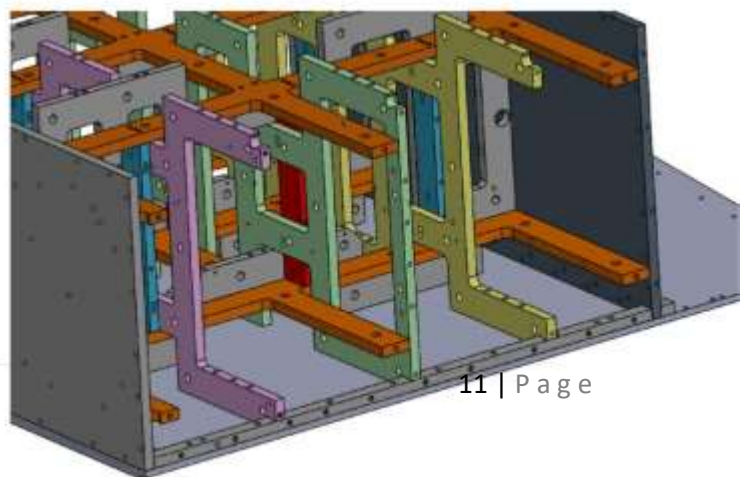
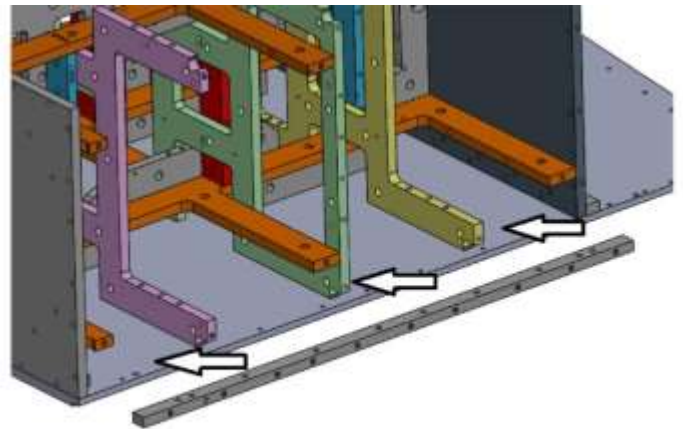
Fasten the skeleton to the -17 side plate with 1/4-20 1 3/4" fasteners with washers and red Loctite.



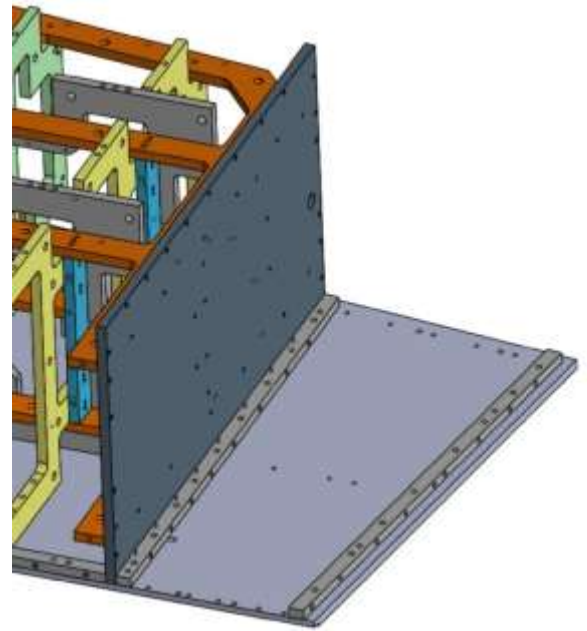
Fasten the Q7-39 frame batten underneath the skeleton. Fasten batten down to the -17 using $\frac{3}{4}$ " $\frac{1}{4}$ -20 fasteners with washers and red Loctite. Make sure the two ends of this batten are flush with its neighboring parts, it should be flush with the -14 plate above it and the -43 plate below it.



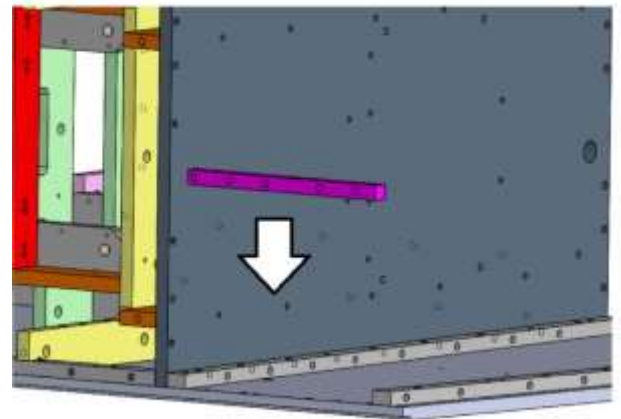
Fasten the Q7-40 batten underneath the skeleton. This batten should fit snugly underneath all braces but there is a slight chance that this batten will stick out past the edge of the Q7-17, if this is the case, and you cannot flush this batten, you need to cut or file small notches into this batten at the locations of the brace contact. Fasten batten down using $\frac{3}{4}$ " $\frac{1}{4}$ -20 fasteners with washers and red Loctite.



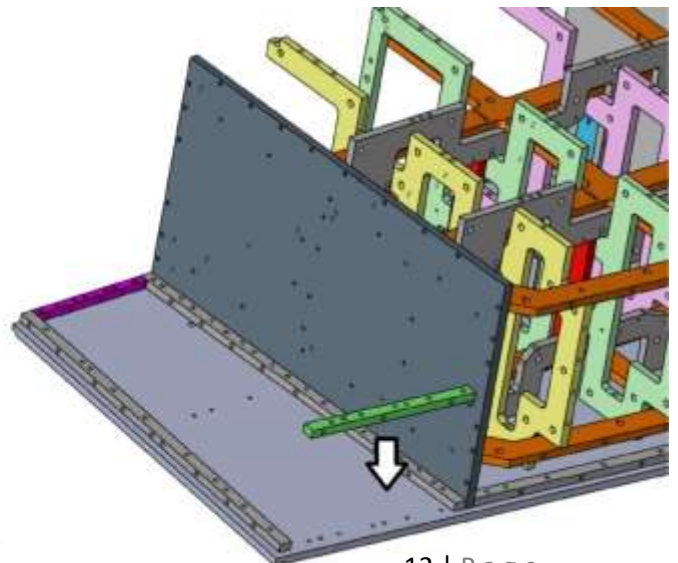
Fasten down the Q7-31 batten. This batten has slanted ends and will be placed towards the top of the cabinet. Make sure it is flush to the flat side / the front side. Fasten batten down to the -17 plate with $\frac{3}{4}$ " $\frac{1}{4}$ -20 fasteners with washers and red Loctite.



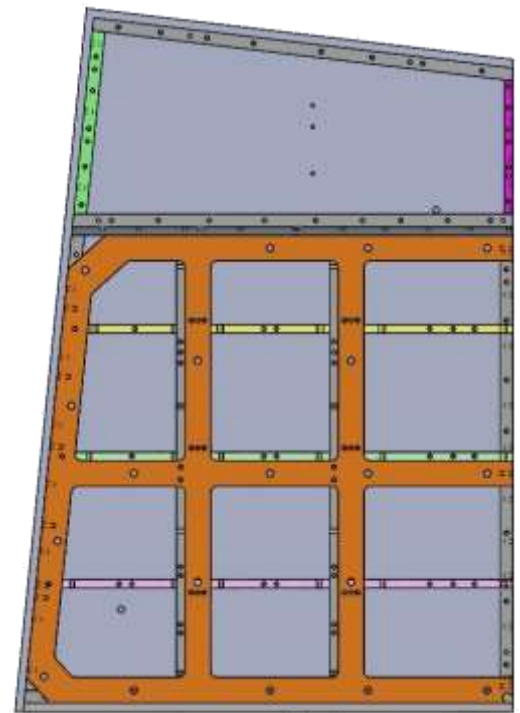
Fasten down the Q7-33 batten. This batten goes on the flat side of the cabinet. Make it flush to the front edge before fastening it down with $\frac{3}{4}$ " $\frac{1}{4}$ -20 fasteners with washers and red Loctite.



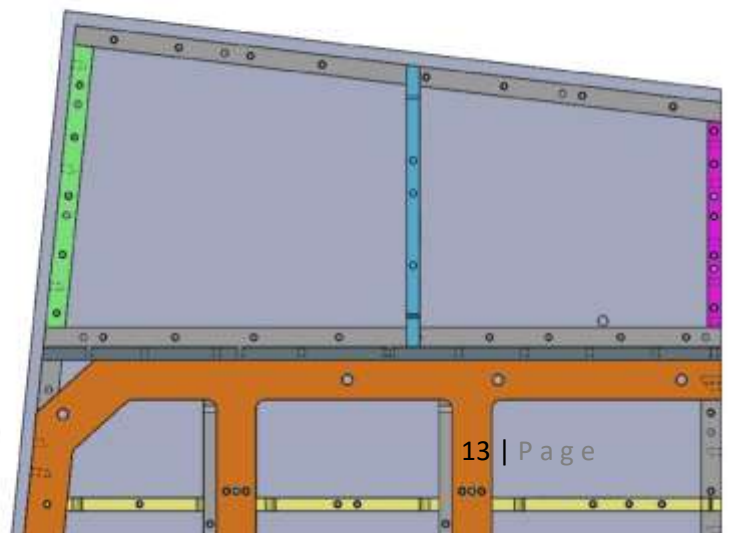
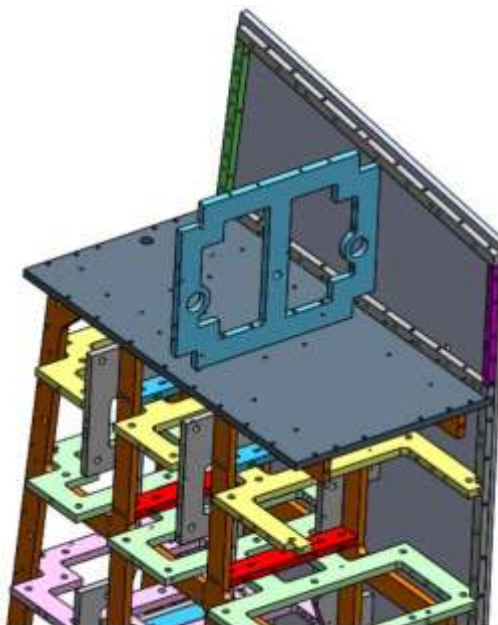
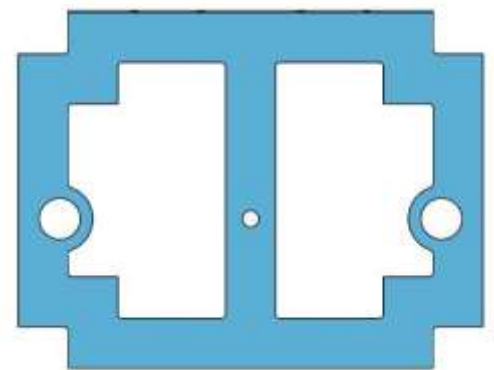
Finally, fasten down the Q7-34. This batten must be flush to the ends of the -31 brace and the -32 brace. Fasten the -34 brace down with $\frac{3}{4}$ " $\frac{1}{4}$ -20 fasteners with washers and red Loctite.



Looking down on your half-cab assembly, it should resemble the image to the right.



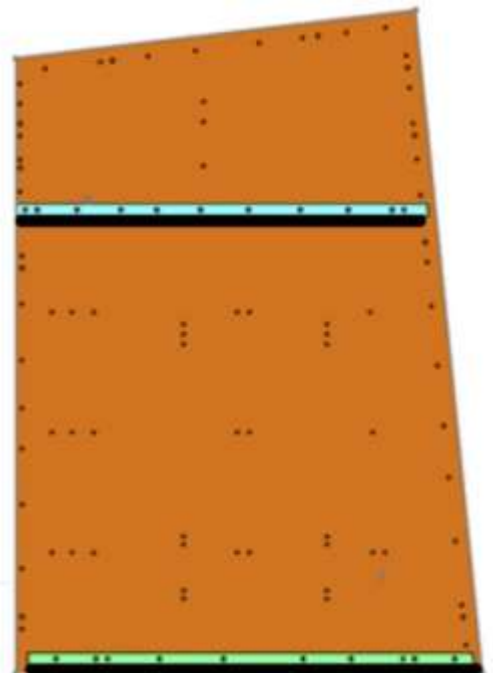
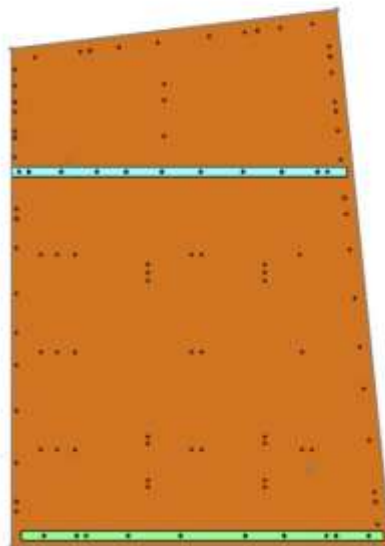
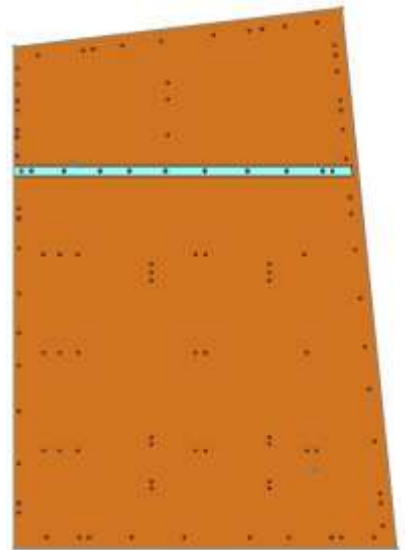
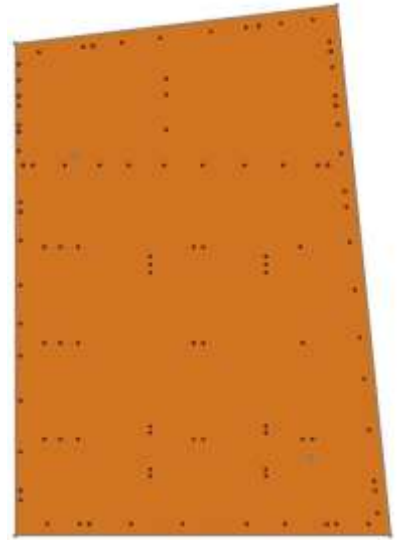
Locate the Q7-16 Internal Brace. Take note of the beveled edge, it will dictate the orientation of this brace. Place the brace down on to the Q7-14 plate, the angled edge on top of the -16 should match the angle in which the -31 batten is sitting. Use 1 3/4" 1/4-20 fasteners with washers and red Loctite to fasten this brace to both the -14 plate and the -17.



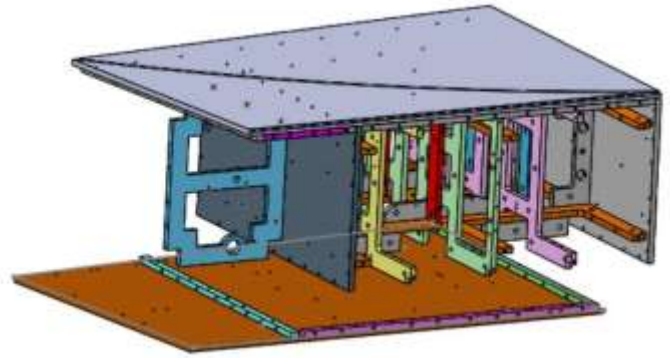
Locate and QC the Q7-18 Side Panel. QC all corners of this plate, inspect for chips or flakes in the finish. Check for irregularities in the finish, if found, notify supervisor immediately.

Locate the Q7-32 frame batten. Install this frame batten on the Q7-18. Before fastening the batten down, make sure it is flush against the front side of the cabinet, which will be the non-angled side. Fasten battens with a 3/4" 1/4-20 fastener with washers and red Loctite. Next up is the Q7-43 frame batten. This frame batten should be installed near the bottom of the -18 plate. Positioning this batten is a bit tricky, to find its ideal location, use a Q7-40, flush up against the front/non-angled side of the -18, and then position the -43 batten flush to the bottom side of the -40. Fasten battens with a 3/4" 1/4-20 fastener with washers and red Loctite.

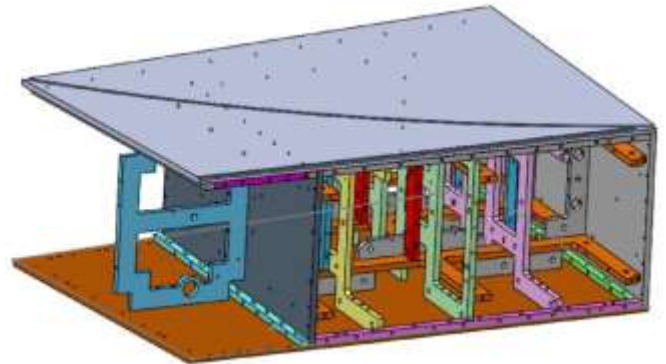
Remove the -40 batten that was being used for positioning reasons. Apply a bead of sealant to the lower/bottom-side corners of the Q7-32 and Q7-43.



With the help of a few strong tough-guys, lift the skeleton assembly up and CAREFULLY plate it down on the Q7-18. Both the baseplate (Q7-10) and lower top plate (Q7-14) should press against the sealant and press up against the two battens (Q7-32 and Q7-43).

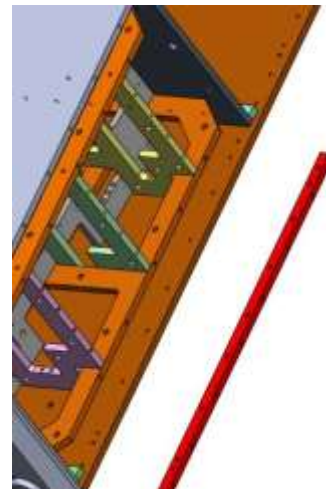


Flush the skeleton assembly to the front of the Q7-18. Fasten down with $\frac{1}{4}$ -20 $1\frac{3}{4}$ " fasteners with washers and red Loctite.

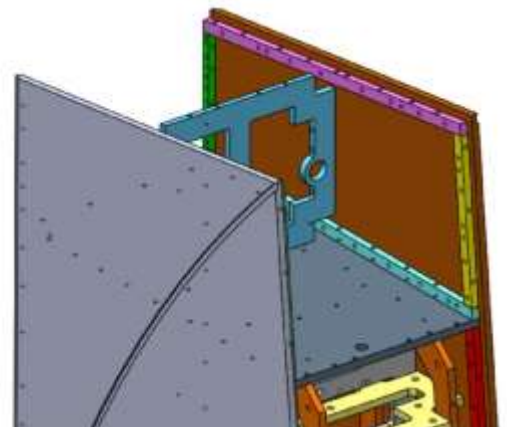


Fasten the skeleton to the -32 and -43 battens with $1\frac{1}{8}$ " $\frac{1}{4}$ -20 fasteners with washers and red Loctite

Fasten the Q7-39 frame batten underneath the skeleton. Fasten batten down to the -18 using $\frac{3}{4}$ " $\frac{1}{4}$ -20 fasteners with washers and red Loctite. Make sure the two ends of this batten are flush with its neighboring parts, it should be flush with the -14 plate above it and the -43 plate below it.



Fasten down the Q7-31 batten. This batten has slanted ends and will be placed towards the top of the cabinet. Make sure it is flush to the flat side / the front side. Fasten batten down to the -18 plate with $\frac{3}{4}$ " $\frac{1}{4}$ -20 fasteners with washers and red Loctite

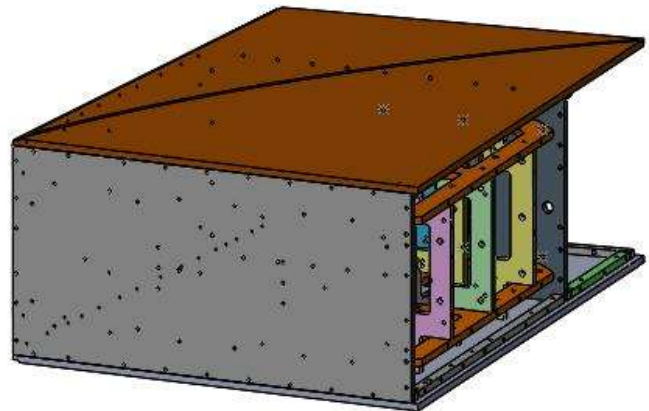
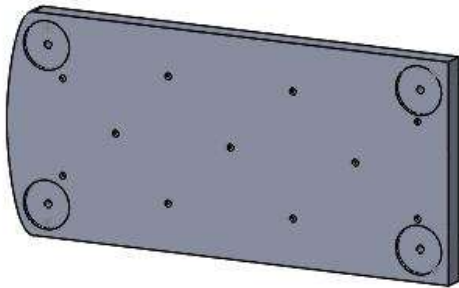
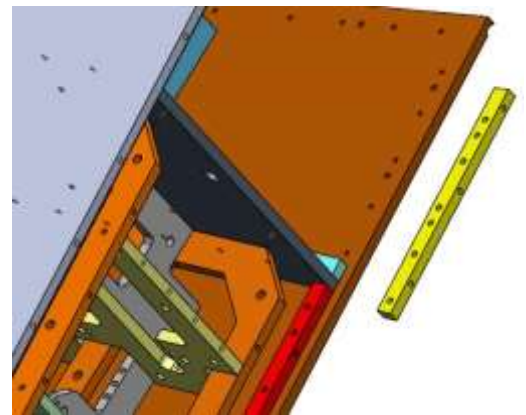
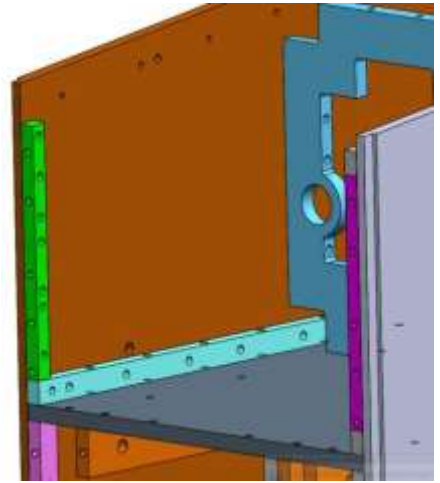


Fasten down the Q7-33 batten. This batten goes on the flat side of the cabinet. Make it flush to the front edge before fastening it down with $\frac{3}{4}$ " $\frac{1}{4}$ -20 fasteners with washers and red Loctite.

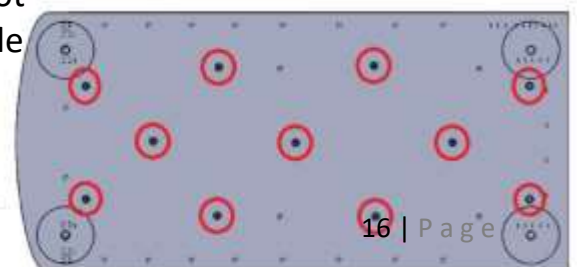
Install $\frac{1}{4}$ -20 $1\frac{3}{4}$ " fasteners through the sides of the -16 brace and in to the side plates with washers and red Loctite.

Finally, fasten down the Q7-34. This batten must be flush to the ends of the -31 brace and the -32 brace. Fasten the -34 brace down with $\frac{3}{4}$ " $\frac{1}{4}$ -20 fasteners with washers and red Loctite.

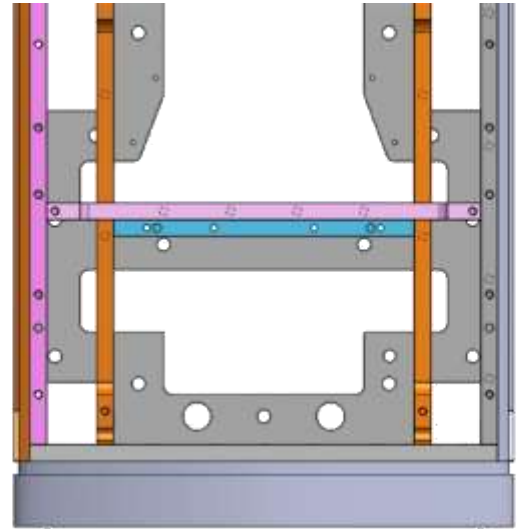
Now locate the Q7-57 Base Plate. QC this plate for any cosmetic blemishes.



Fasten this base plate to the Q7-10 inner base plate. Do not put all fasteners in but do not fasten them tight. Use $2\frac{1}{4}$ " $\frac{1}{4}$ -20 black oxide fasteners.



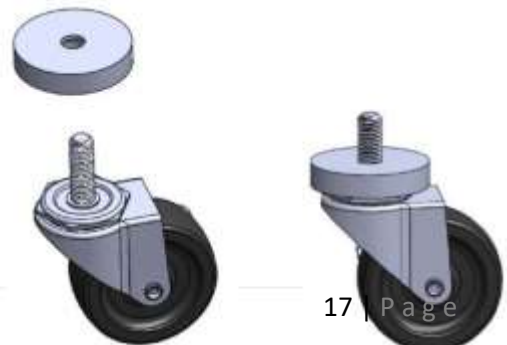
Use the electric lift and carefully place its forks inside the skeleton frame. Lift the cabinet straight up so that it is suspended in the air.



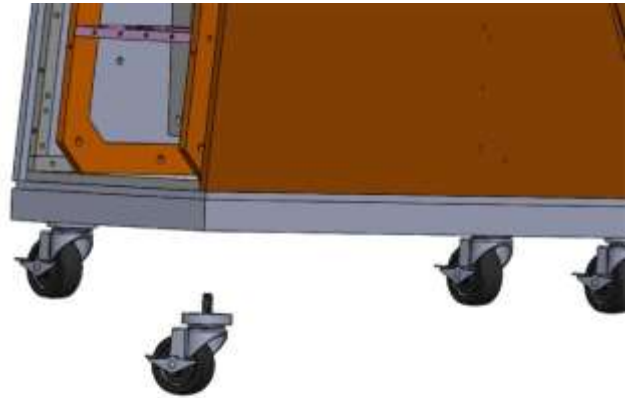
Loosen and align the Q7-57 Base Plate so that it sits flush or even on either side. Tighten the 11 fasteners, and then do a second pass and give each fastener a re-torque.



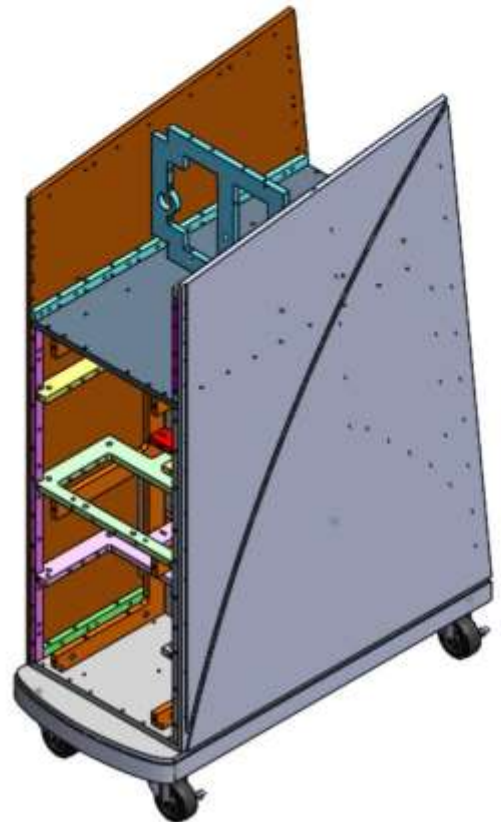
Thread the caster spacers down on to each of the caster wheels (4). Install rubber gasket over spacer.



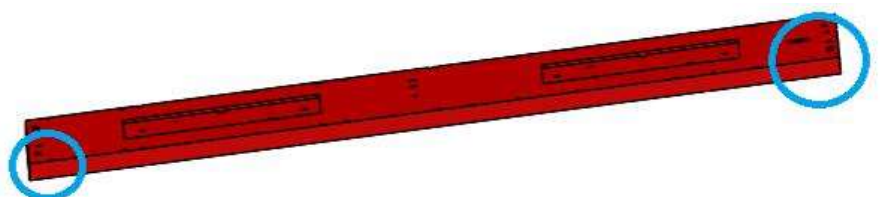
Thread the casters in to the bottom of the Q7-57. (All casters should have brakes.)



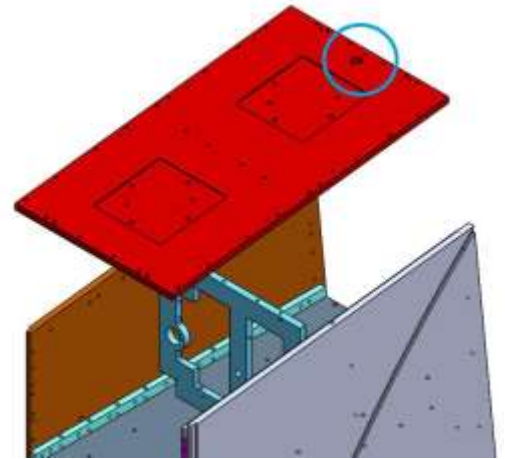
Carefully lower the cabinet down until it is standing on its caster wheels. Once here, move the electric back and away carefully, be mindful not to bump the cabinet with the lift.



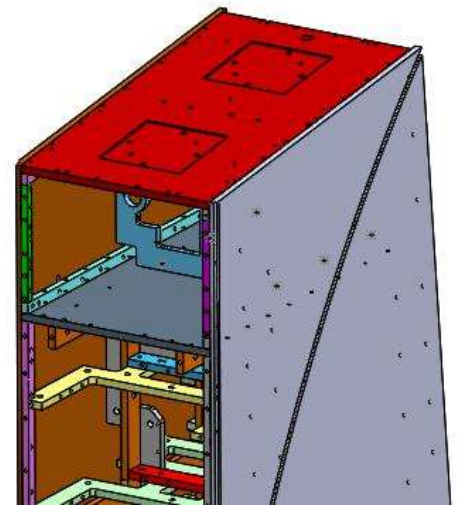
Find the Q7-15. Take note of the angles on this plate.



The large hole in the plate will indicate the rear of the cabinet (the high side). Carefully place this plate down in to the cabinet. There is a small chance you will have trouble getting this plate in easily, if this happens, use x2 clamps set to spread, set them on either side of the cabinet, and spread the two sides of the cabinet. This -15 plate should drop right in, be very careful and make sure the plate does not just slide right off the cabinet. Release the clamps and pinch the plate in place. Use a soft mallet to tap the plate flush.

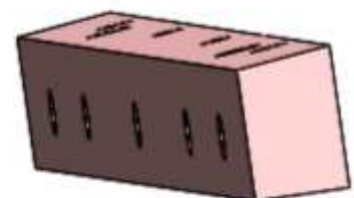
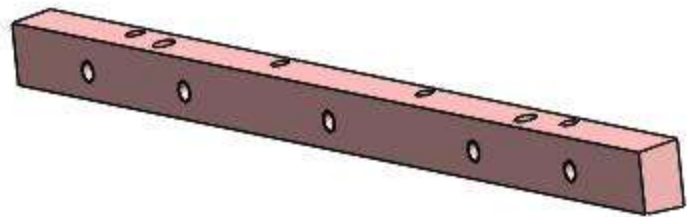


Fasten this top plate to the Q7-31 battens with 1 1/8" 1/4-20 fasteners with washers and red Loctite. (4) of these fasteners will go in between the two square cutouts and will go from this plate down in to the -16 brace.

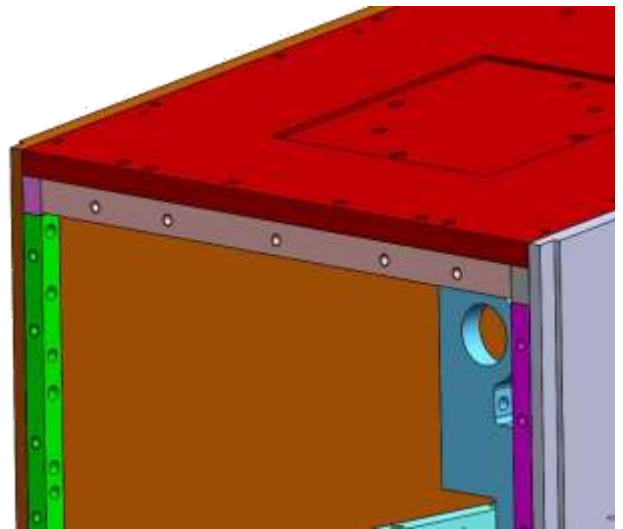


The Q7-35 will be installed to the front / underside of the Q7-15.

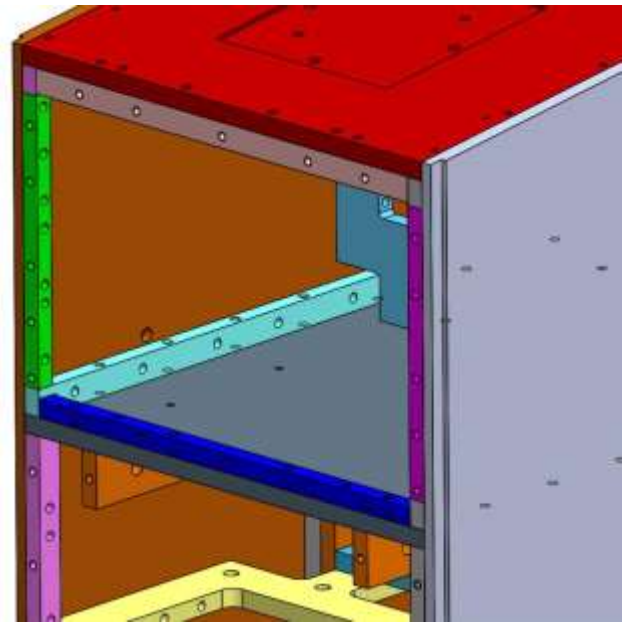
Take a look at the Q7-35 batten, look at the angles cut in to this part. These angles need to coincide with the angle that the -15 sits and it must be flush with the front of the cabinet as well.



Fasten the Q7-35 to the Q7-15 using 1 1/8" ¼-20 fasteners with washers and red Loctite. Seal unused holes with Alex + sealant.

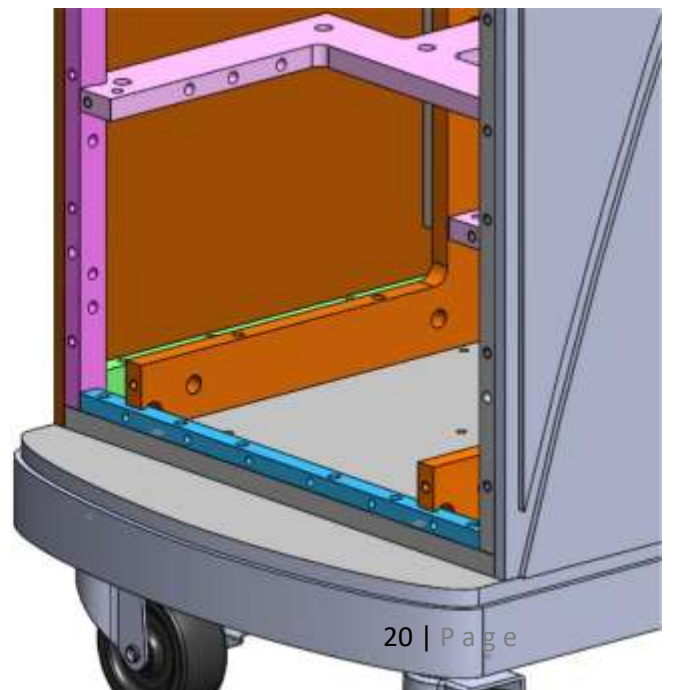


Take the Q7-38 batten, apply a bead of sealant to its underside and fasten to the Q7-14 using 3/4" ¼-20 Low Head fasteners with red Loctite. Fill the two unused holes with Alex + sealant.

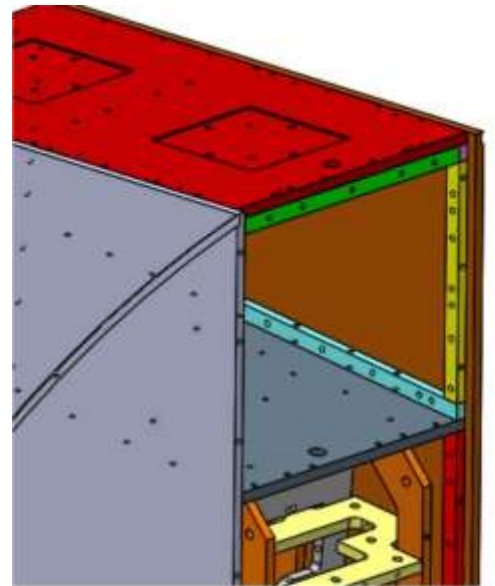


Locate the Q7-42 batten and fasten it to the Q7-10. Use 3/4" ¼-20 Low Head fasteners with red Loctite.

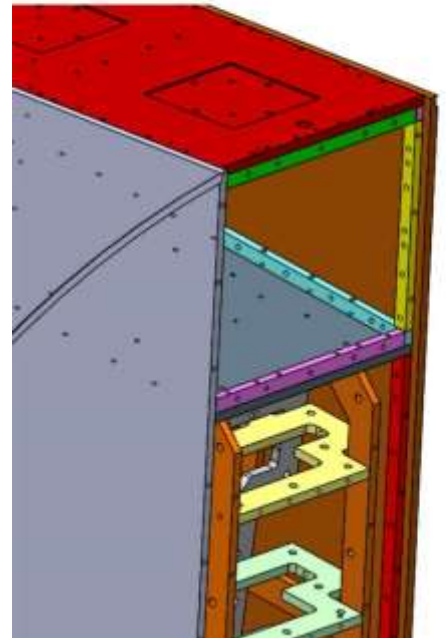
You may have to grind or file away reliefs into the -42 batten to get clearance from the -04 braces and sit flush with neighboring battens.



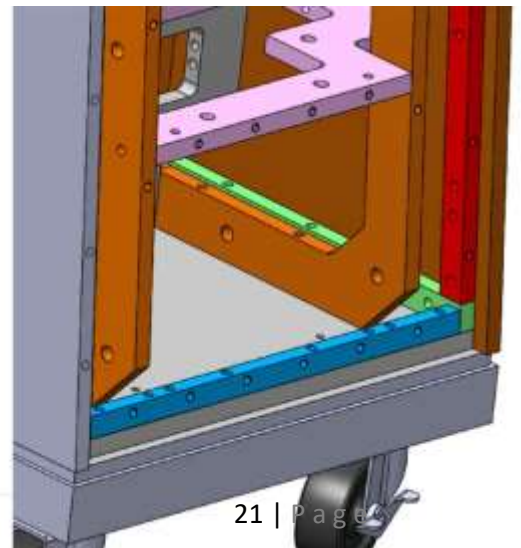
Fasten the Q7-36 batten to the rear / underside of the Q7-15. Use 1 1/8" ¼-20 fasteners with washers and red Loctite. Alex + seal any unused holes.



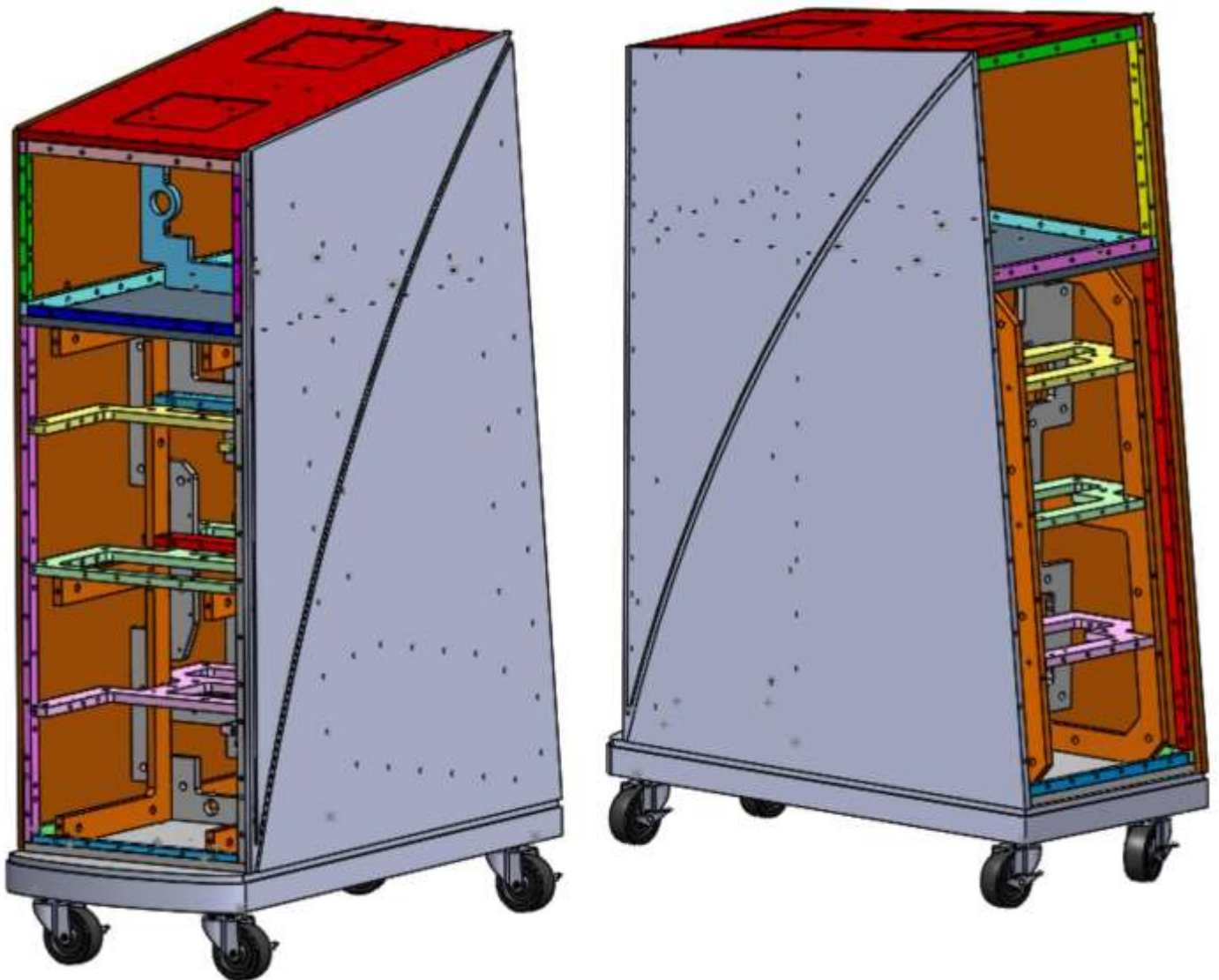
Fasten the Q7-37 batten to the Q7-14 plate with 1 1/8" ¼-20 fasteners with washers and red Loctite. Alex + seal any unused holes.



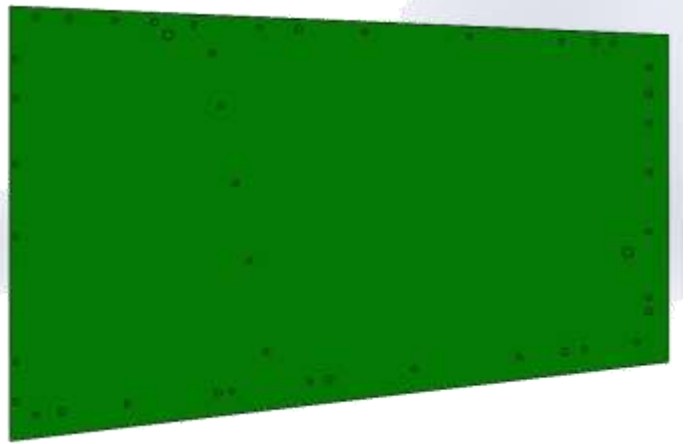
Fasten down the Q7-41 to the Q7-10. Use ¾" ¼-20 Low Heads with red Loctite. Alex + Seal any unused holes.



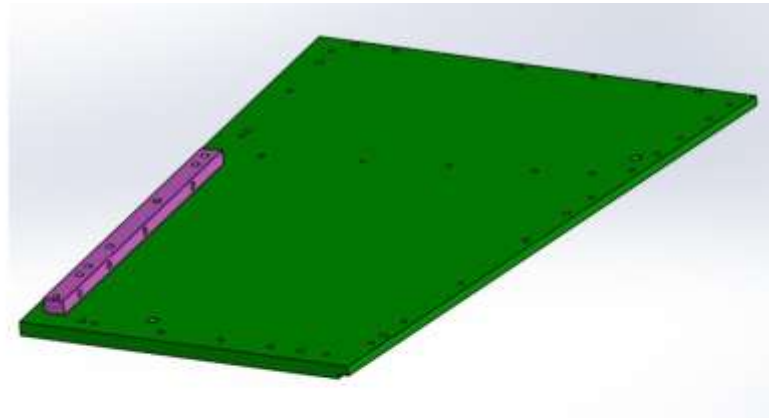
Pictured below is a finished lower half cab. Put this half cab in a spot where it can sit safely and is free from the possibility of being damaged. Mock up and place the Q7-62 (Lower Back-Plate) to check fit and see if shimming is necessary See Rudy or more experienced builder if shimming is necessary.



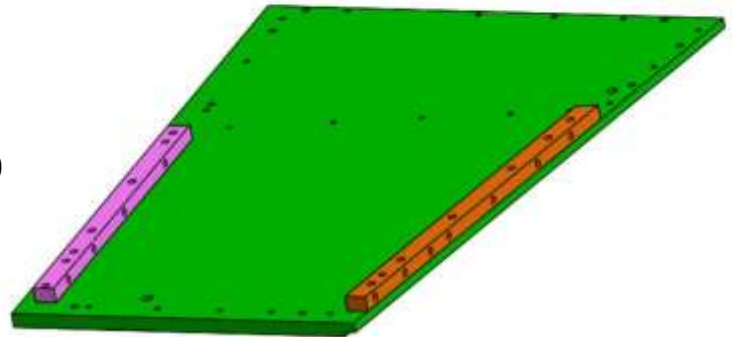
Unwrap and QC the Q7-08, upper left side plate. Check all corners for flaking, uneven chamfers, dents, or other cosmetic defects.



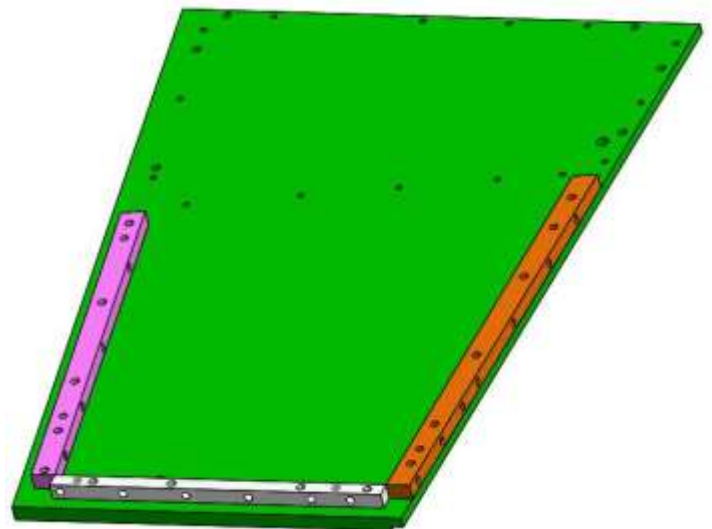
Attach the Q7-25 batten to the Q7-08 using $\frac{3}{4}$ " $\frac{1}{4}$ -20 fasteners with washers and red Loctite.



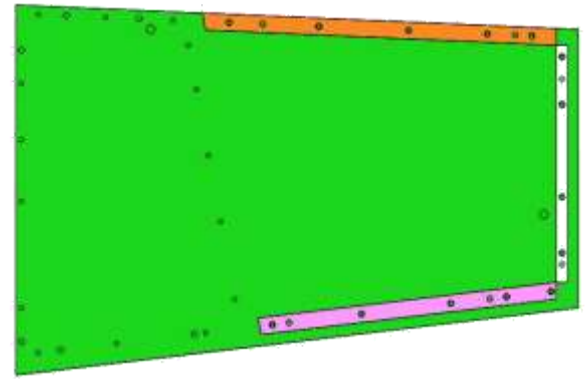
Attach the Q7-28 batten to the Q7-08. Fasten it down using $\frac{3}{4}$ " $\frac{1}{4}$ -20 fasteners with washers and red Loctite.



Install the Q7-29 batten to the Q7-08, fasten it down with $\frac{3}{4}$ " $\frac{1}{4}$ -20 fasteners with washers and red Loctite.



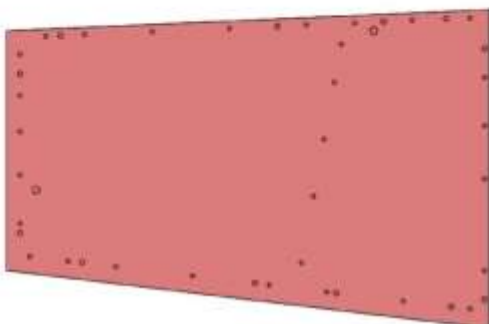
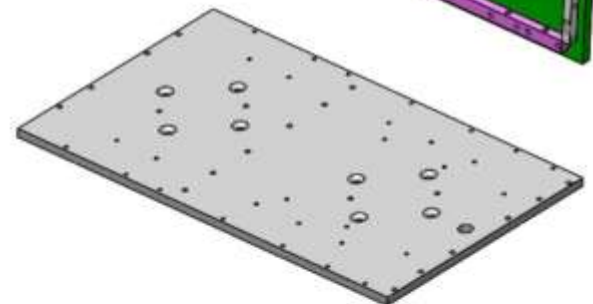
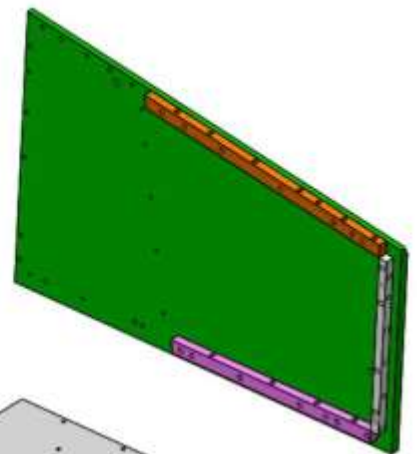
After those three battens are fastened to the Q7-08, compare it to this image to the right to compare and make sure everything is installed correctly.



Find and unwrap the Q7-13. Install the Q7-24 batten to the end of the -13. Place the -08 on to the -13. The large hole drilled in the middle near the edge of the -13 is the indicator of the rear side of the cabinet. The -08 should be flush with the -13 on the bottom and front/rear sides. Fasten down by feeding fasteners through the -29 and in to the -13 plate. Use 1 1/8" ¼-20 fasteners with washers and red Loctite.

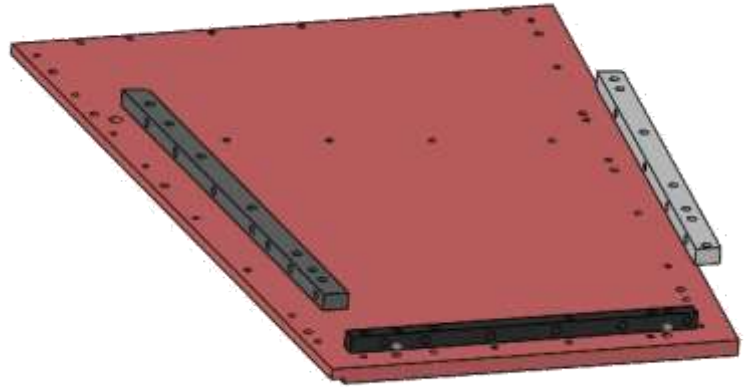


Locate and QC the Q7-07. Check every corner and edge for cosmetic imperfections. Report any issues to your supervisor to get approved.



Fasten down the Q7-28 (shown as the dark grey batten in the picture to the right) to the -07 plate.

Fasten down to the -07 plate with $\frac{3}{4}$ " $\frac{1}{4}$ -20 fasteners with washers and red Loctite.

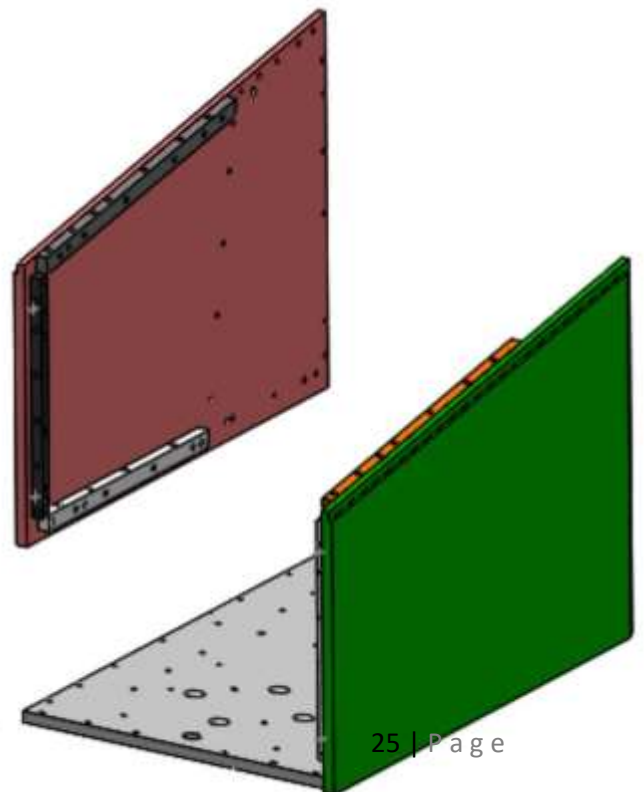


Fasten down the Q7-25 (shown as the light grey batten) to the -07 plate. $\frac{3}{4}$ " $\frac{1}{4}$ -20 fasteners with washers and red Loctite.

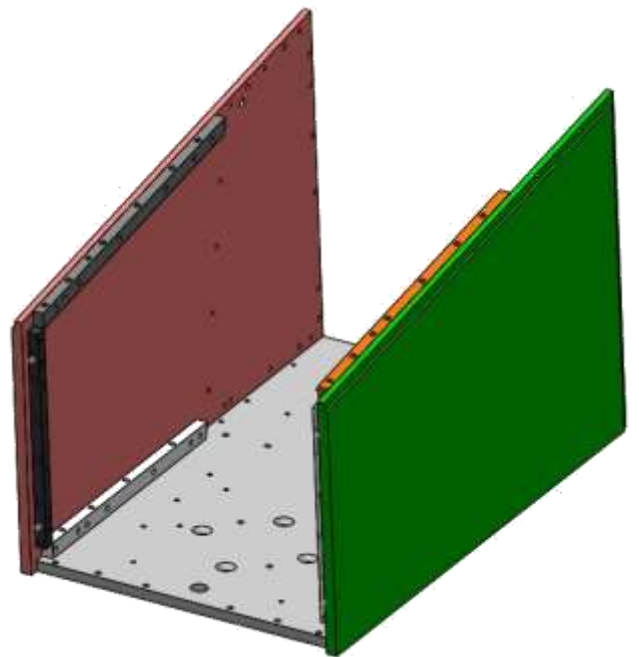


Fasten down the Q7-29 to the -07 plate. Use $\frac{3}{4}$ " $\frac{1}{4}$ -20 fasteners with washers and red Loctite.

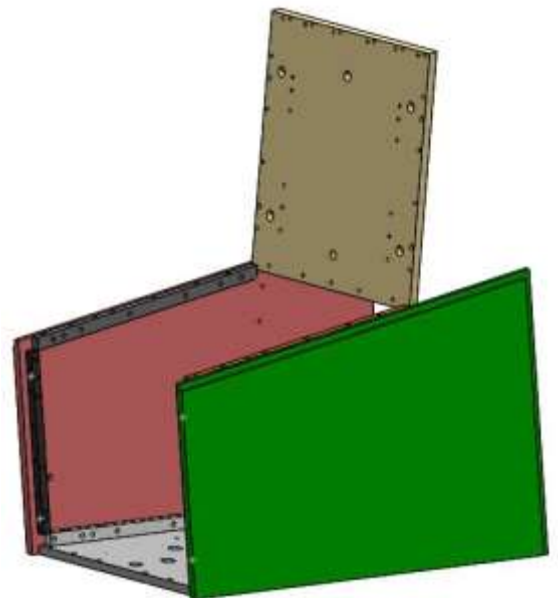
Place the -07 down on to the -13 plate. Make sure the -07 is flush with the -13, front/back/and underside. Fasten plate down with $1 \frac{1}{8}$ " $\frac{1}{4}$ -20 fasteners with washers and red Loctite.



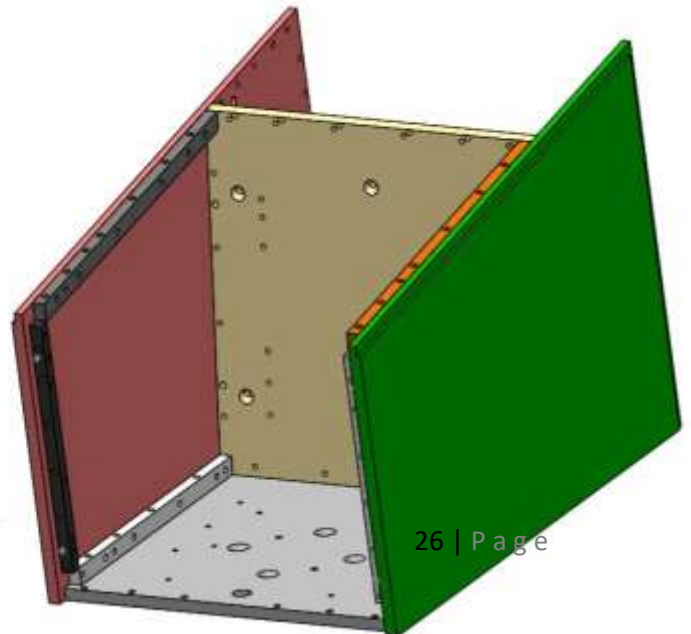
Check your incomplete upper cab assembly. It should resemble the image to the right.



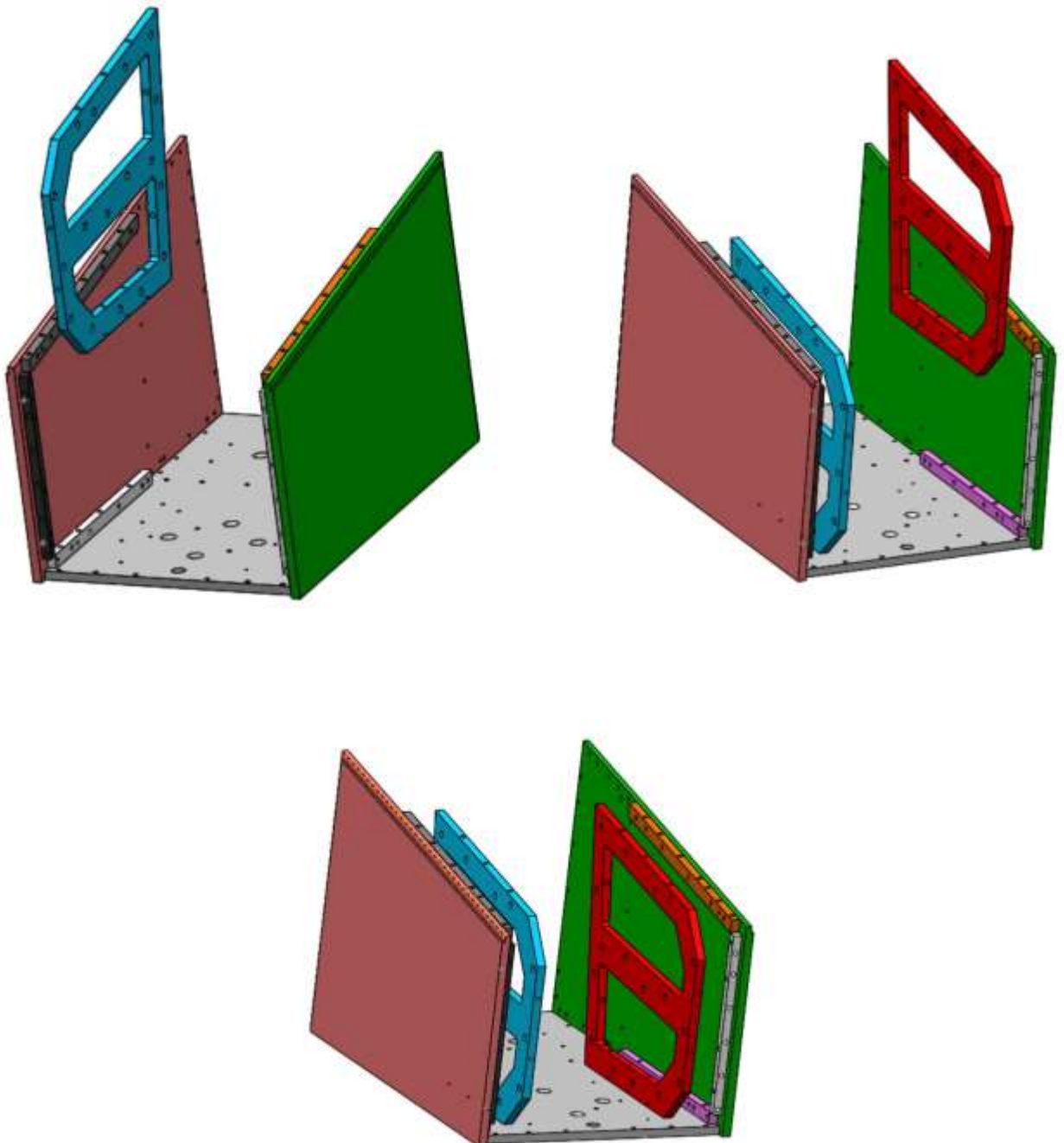
Slide the Q7-19 down in between these side plates to check to make sure that it will sit flush with the tops of the side plates. If this plate sits higher than the side plates when fully seated, you will have to loosen up the fasteners along both sides of the -25 battens, adjust the side plates until both are positioned correctly and then re-tighten -25 batten fasteners.



Once the side plates are leveled correctly, remove the Q7-19 plate.



Install the Q7-20 braces and fasten them loosely in to the Q7-13 plate. Use 2" ¼-20 fasteners with washers and red Loctite. Do not tighten these fasteners down yet.



Slide the Q7-19 plate down in between the two side plates and fasten it to the two Q7-20 braces with 1 ¾" ¼-20 fasteners.

Use ¼-20 2" fasteners when fastening brace into the -19 and -13 plates.

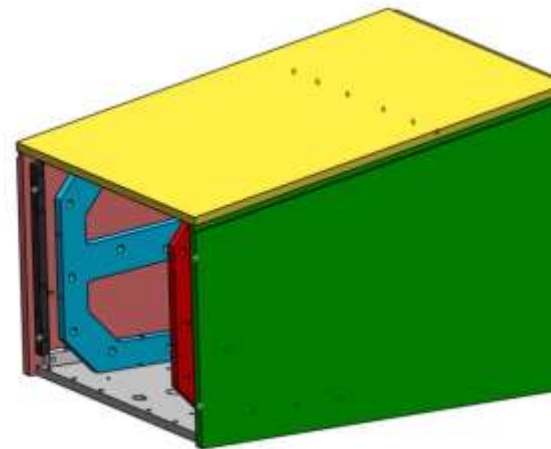
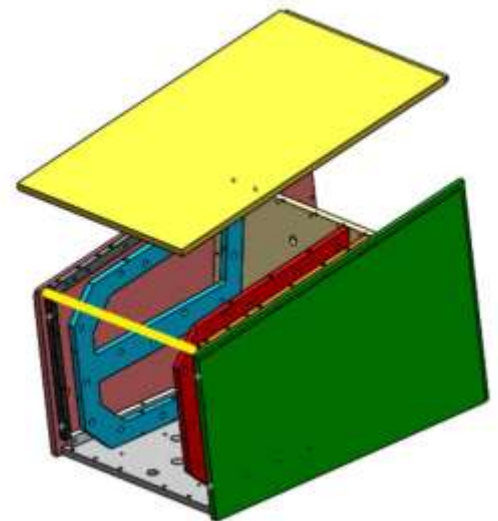
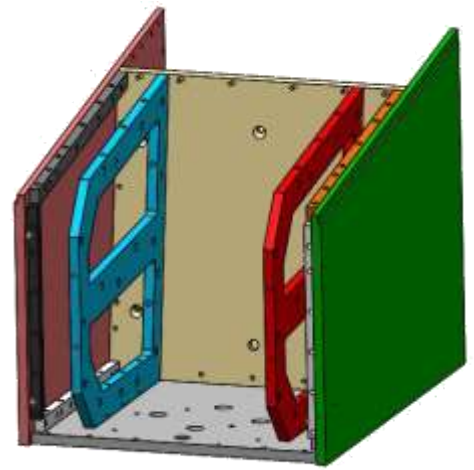
Set down the Q7-23 (represented by the yellow line in the figure to the lower right) It does not fasten in to anything yet, simply set it here to help spread the cabinet to its ideal width. This will attach to the rear underside of the -09. If you look at the holes on this batten you will notice that they are not in the center of the batten, they are offset slightly. The side of the batten that has more, the side with the offset, should be facing towards you, which should be the rear of the cabinet, the side of the batten where the through holes are closer to the edge should be facing the -09 rabbit / the front side of the cabinet.

Unwrap and QC the Q7-09. Check all corners and rabbit for flakes/damage/any defects. If the -09 passes your QC, carefully install it to the upper cabinet assembly. The front of the -09 is the side with the rabbit, the front of the assembly is the tall side.

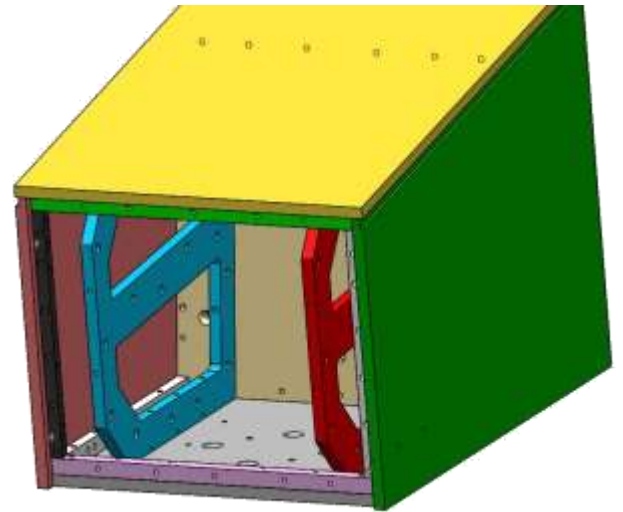
Use 1 1/8" ¼-20 fastener to fasten the -09 to the assembly via side battens.

Thread 1 ¾" through the -20 braces upward in to the -09 with washers and red Loctite.

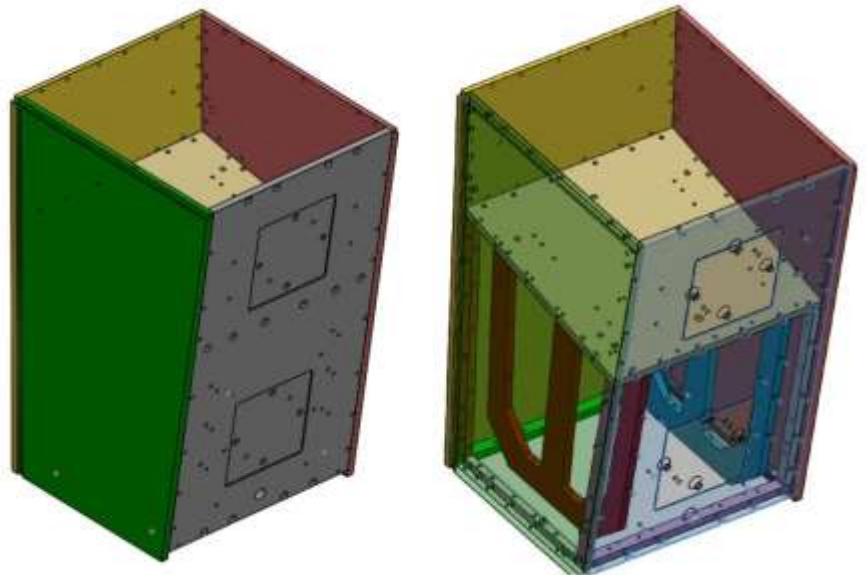
Fasten down all bolts that were left loose in the -20 braces.



Place the upper cabinet down on a piece of foam, the small side should be facing down.



The cabinet should look like the image to the right.



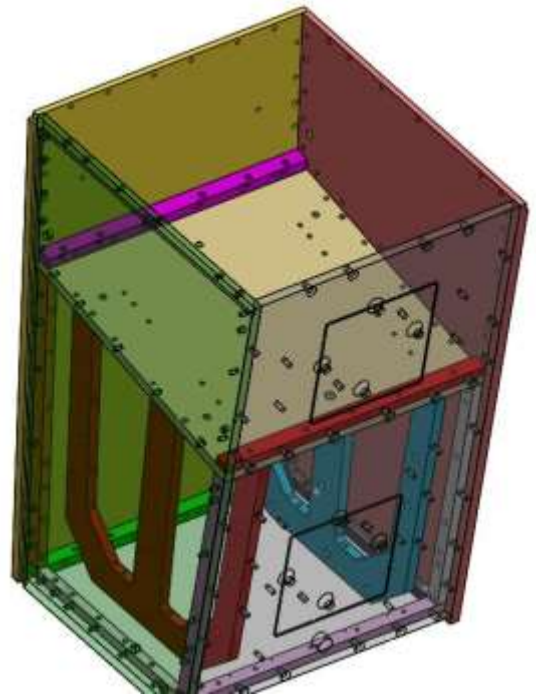
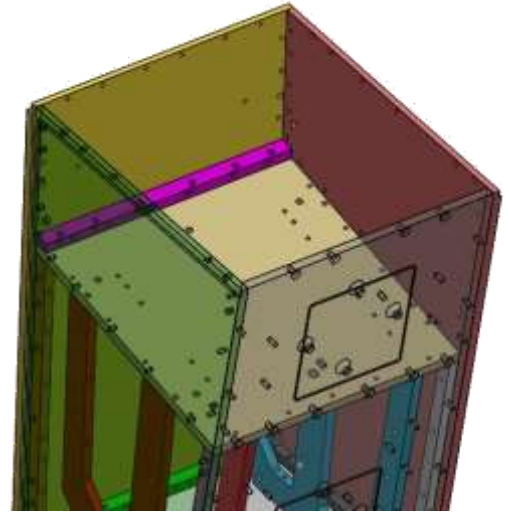
Mock up the battens -22 and -69 battens by placing them in the upper cabinet to check their orientation. Once orientation has been found remove battens and place them aside in a way that will be easy to move back.

Apply a bead of Alex + sealant at the -09 / -20 joint. Press the Q7-22 batten in to the sealant and up against this joint. The orientation of this batten is dictated by the through hole position.

Thread 1 1/8" ¼-20 fasteners in through the batten loosely and in to the -09 plate, do not tighten down. Loosely thread 1 1/8" fasteners in through the batten and in to the -20 plate. Once all fasteners are in position, tighten them all.

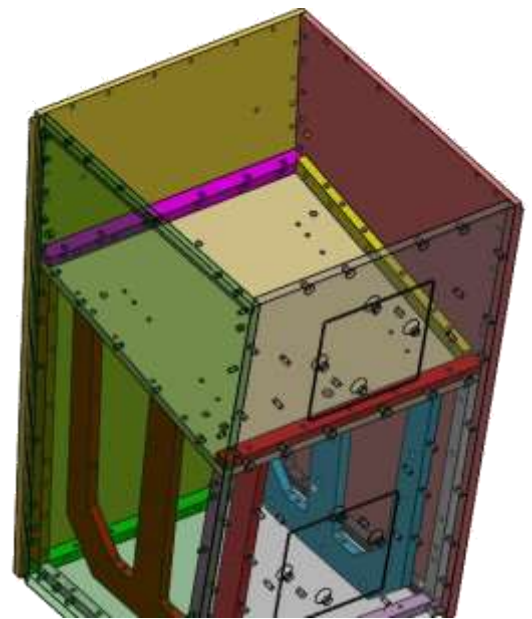
Apply a bead of Alex + to the -20 / -13 joint. Install the Q7-69 to the joint, sandwiching the Alex + sealant. Thread 1 1/8" ¼-20 fasteners down loosely through the -69 and in to the -20

Fasten the -69 from the bottom by threading a 7/8" ¼-20 fastener Counter Sunk fastener through the -13 plate and in to the -69 batten.



Apply a bead of Alex + to the -20 / -07 joint. Install pins in to the Q7-70 batten. Use the image below to see the batten/pin orientation. Install the Q7-70 batten by placing it down in this joint, and loosely fastening 1 1/8" ¼-20 fasteners down through the Q7-70 and in to the -20 plate.

Keep these bolts loose. Thread ¾" fasteners through the -70 batten, and in to the -07 plate. After all fasteners are threaded in place, tighten all by hand.

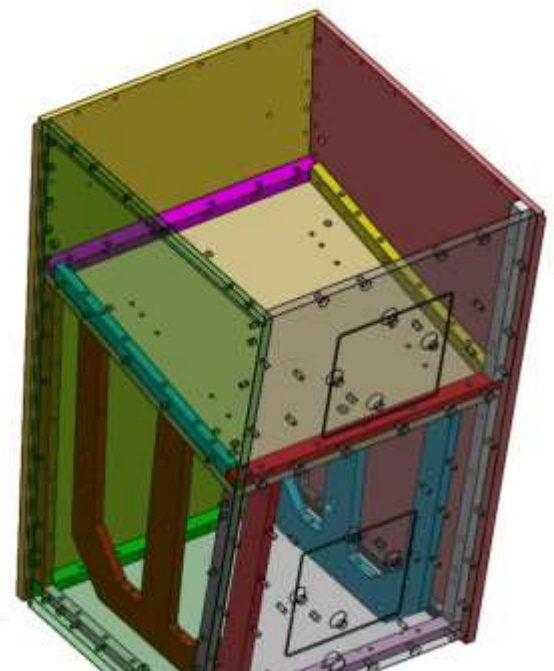
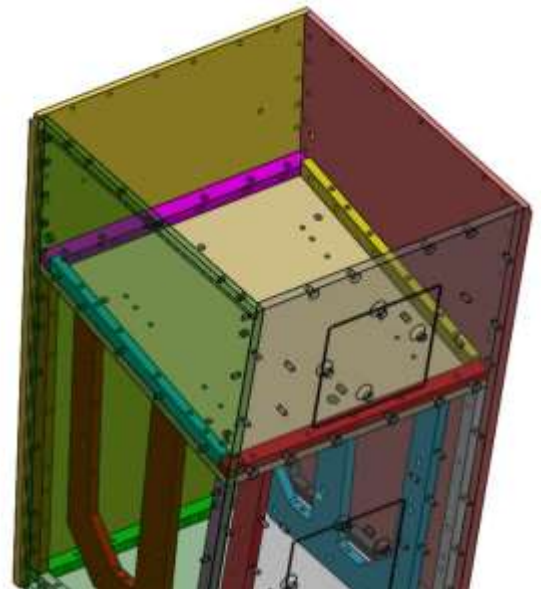


Apply a bead of Alex + to the -20 / -08 joint. Install the Q7-70 batten by placing it down in this joint, and loosely fastening 1 1/8" ¼-20 fasteners down through the Q7-70 and in to the -20 plate. Keep these bolts loose.

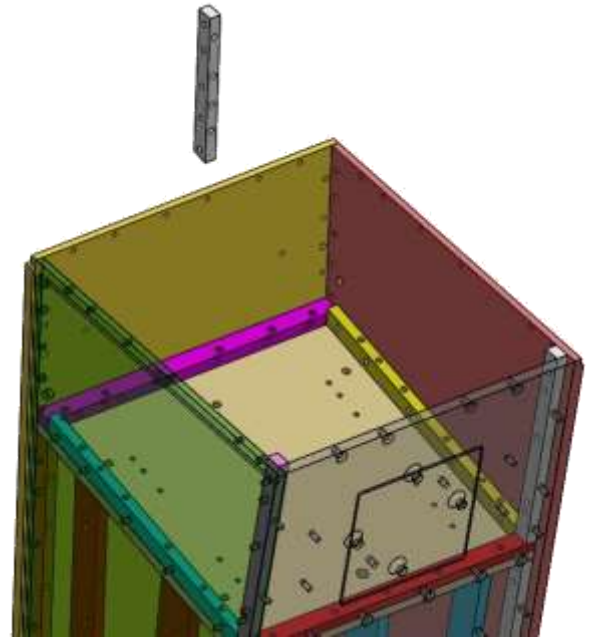
Thread ¾" fasteners through the -70 batten, and in to the -08 plate. After all fasteners are threaded in place, tighten all by hand.

Apply a bead of sealant to the -13 / -08 joint. Install the Q7-26 batten in the corner/joint and sandwich the sealant.

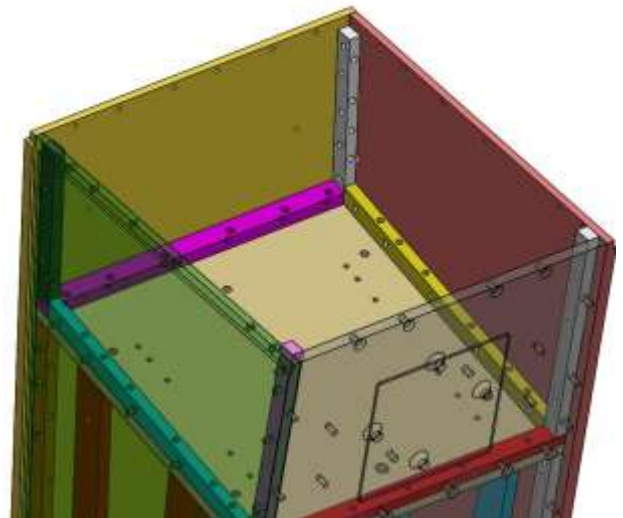
Fasten by threading 1 1/8" ¼-20 fasteners with washers and red Loctite through the Q7-26 and down in to the -13 plate. Thread ¾" ¼-20 fasteners with washers and red Loctite through the Q7-26 and in to the -08. Use spreader or clamp to flush -07/-08 to -09 and -13 plate.



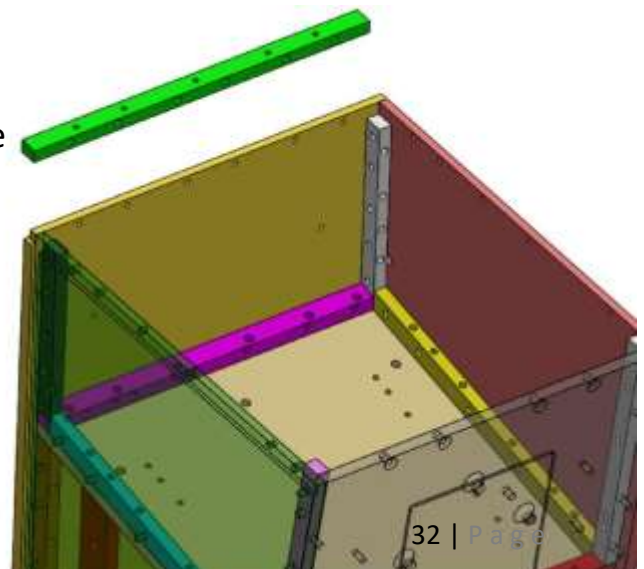
Apply a bead of Alex + to the -09 / -07 joint. Install the Q7-27 in this joint/corner. Use 3/4" 1/4-20 fasteners through the -27 and in to the -07. Use washers and red Loctite. Fasten the -27 to the -09 using 1 1/8" 1/4-20 fasteners with washers and red Loctite.



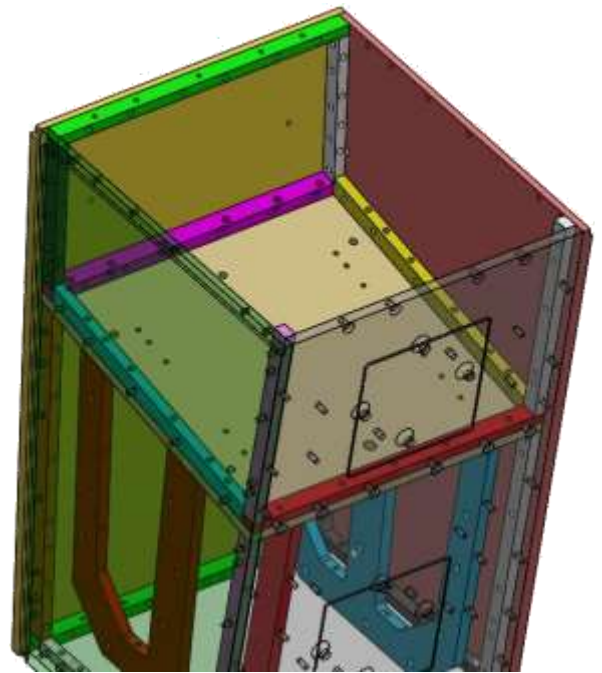
Apply a bead of Alex + to the -09 / -08 joint. Install another Q7-27 in this joint/corner. Use 3/4" 1/4-20 fasteners through the -27 and in to the -08. Use washers and red Loctite. Fasten the -27 to the -09 using 1 1/8" 1/4-20 fasteners with washers and red Loctite.



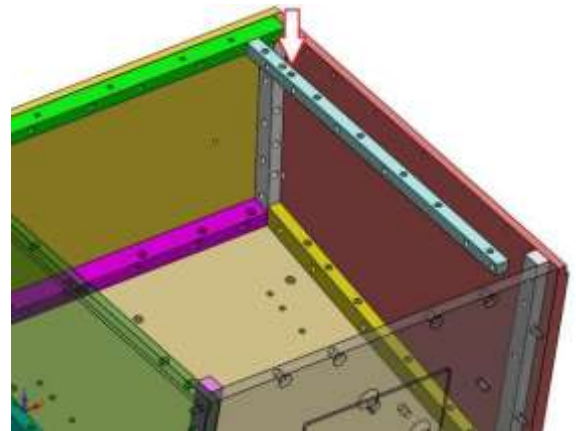
Locate the Q7-21. This batten, when installed, will fit on the underside of the -09. Before installing this brace, apply a bead of Alex + sealant, starting from one side and going all the way to the other, in the spot the -21 will go.



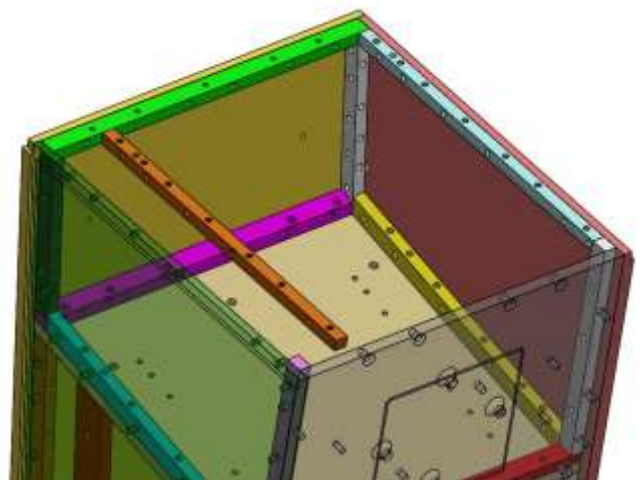
Fasten down the -21 brace with 1" ¼-20 fasteners with washers and red Loctite. Thread the fasteners in through the -21 brace and in to the -09.



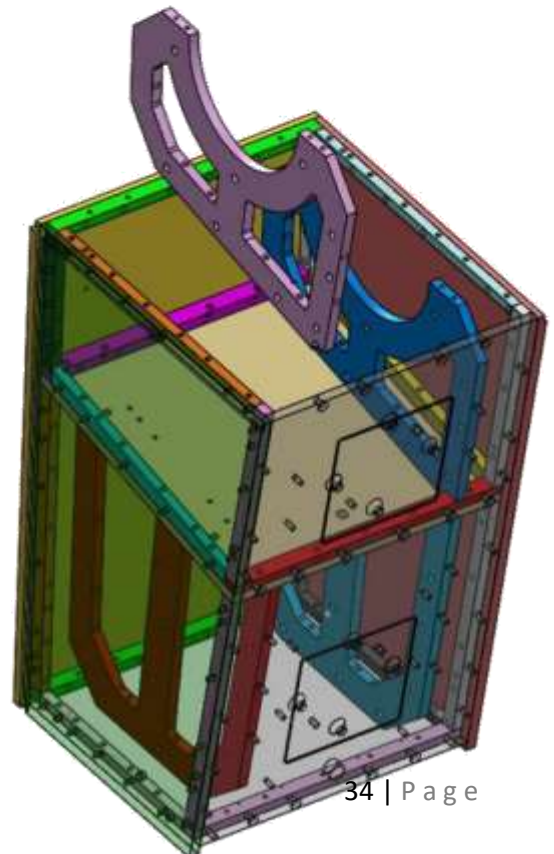
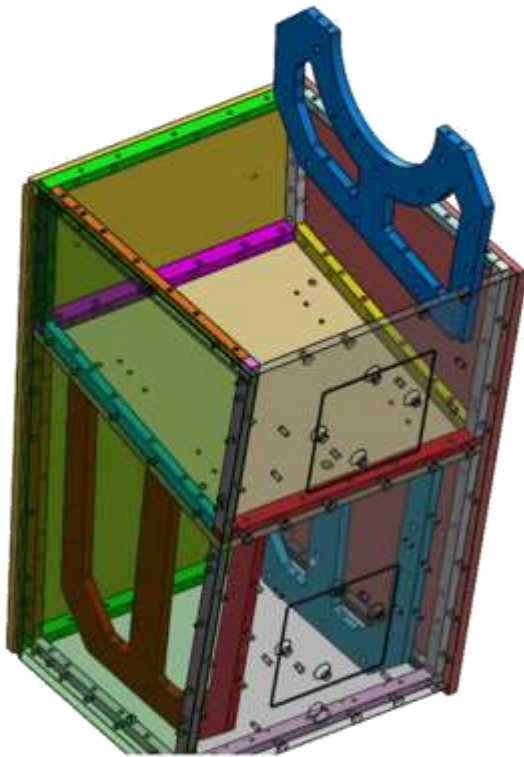
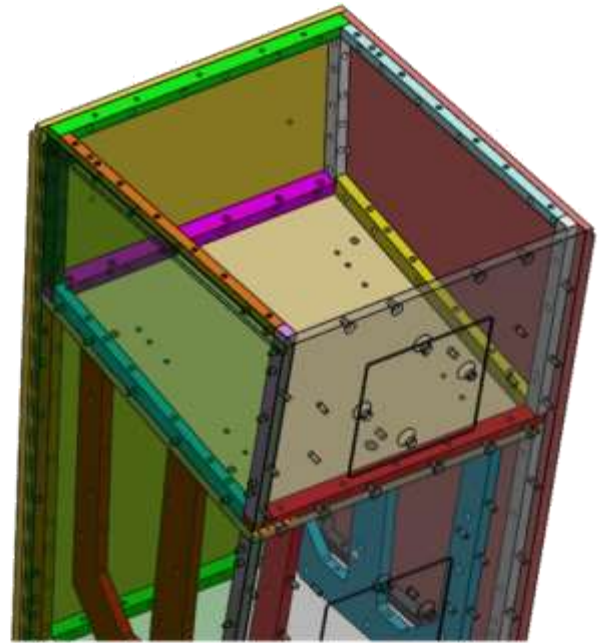
Place the Q7-30 up against the -07 to determine its orientation. Install pins to the -30 battens in the location shown in the image to the right. Fasten it to the -07 with ¼-20 ¾" fasteners with washers and red Loctite.



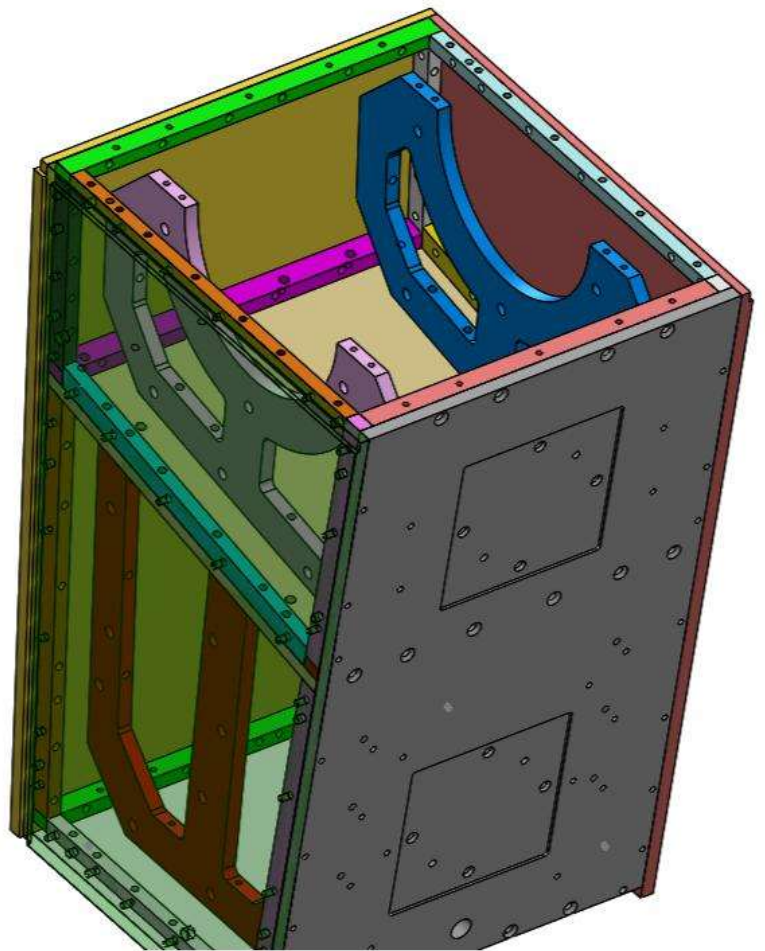
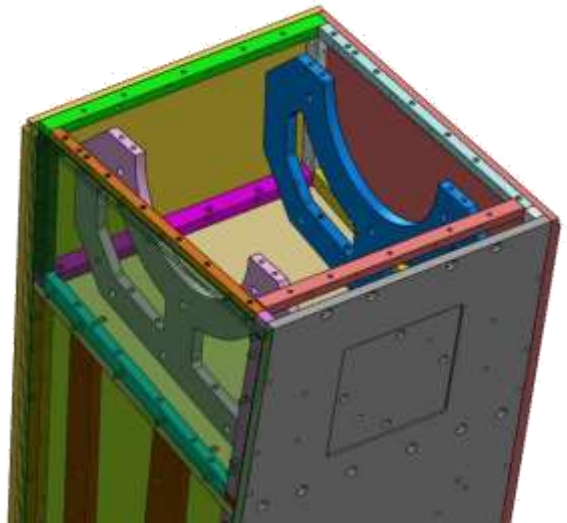
Place the second pre-pinned Q7-30 up against the -08 to determine its orientation. Apply a bead of Alex + where the -30 would meet the -08. Fasten it to the -08 with ¼-20 ¾" fasteners with washers and red Loctite.



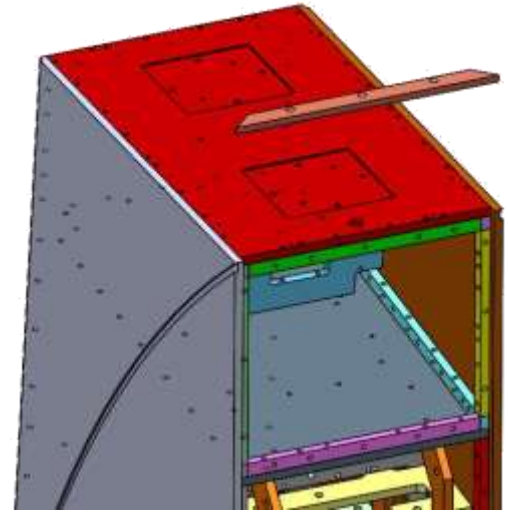
Locate (2) Q7-59 braces. Slide the braces carefully in to this cabinet section. Fasten this brace to the -09 and to the -19 with 1 ¾" ¼-20 fasteners with washers and red Loctite. Further fasten these braces in to the -13 plate with 2" ¼-20 fasteners with washers and red Loctite.



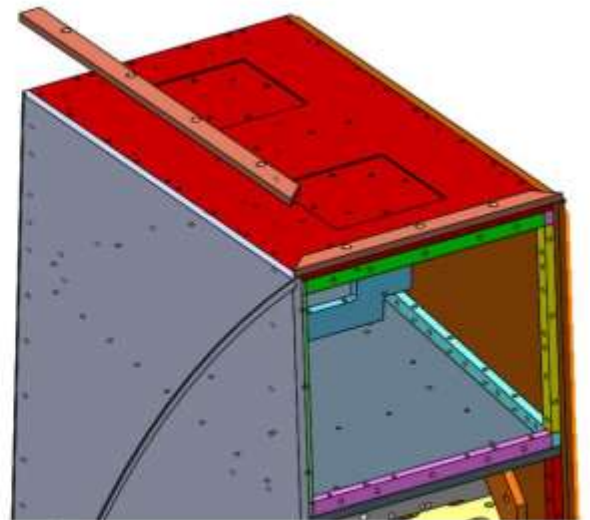
Find the Q7-44 batten. It will be placed on the Q7-13. Apply a bead of sealant down on to the -13 plate. Fasten this batten down with $7/8''$ $1/4$ -20 counter sink fastener. Thread these fasteners in through the bottom of the -13 plate and fasten in to the Q7-44.



Install large white collar in large hole in -15 plate. You will have to trim part of the overhang from the white washer. The Q7-45 is the short piece of copper with angled edges. Install this part, on top of the lower cab. This will go on the side of the -15 plate with a large hole drilled right in the middle. Before installing the -45, install a white large collar washer in to the large hole. After the washer is installed, install the -45 down to this plate. Use the 7/8" 10-24 flat counter sink fasteners with red Loctite.

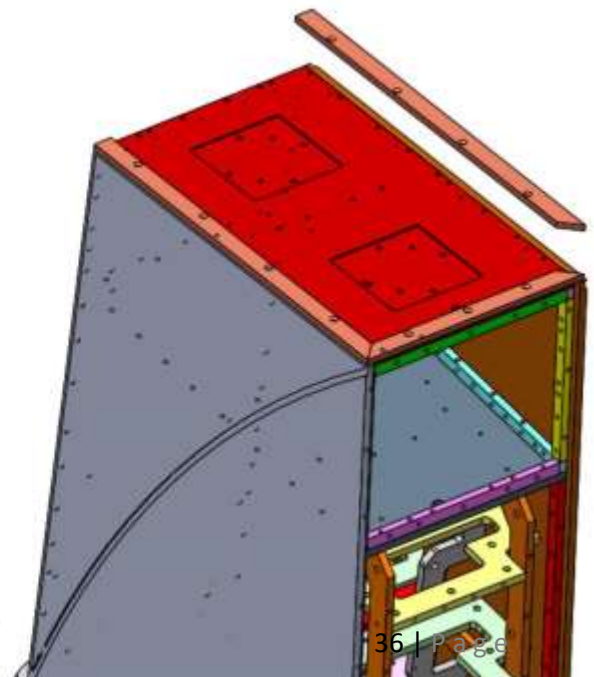


The Q7-46 is a longer piece of copper with angled edges. Install this part on top of the lower cab. This part goes to the side of the -45 copper piece on top of the -15 plate. Fit the -46 copper piece flush with the flat side of the cabinet, its angled side should meet flush with the -45 batten.



Fasten this copper piece down with 7/8" 10-24 flat counter sink fasteners with red Loctite.

The Q7-47 is a longer piece of copper with angled edges. Install this part on top of the lower cab. This part goes to the side of the -45 copper piece on top of the -15 plate. Fit the -47 copper piece flush with the flat side of the cabinet, its angled side should meet flush with the -45 batten.



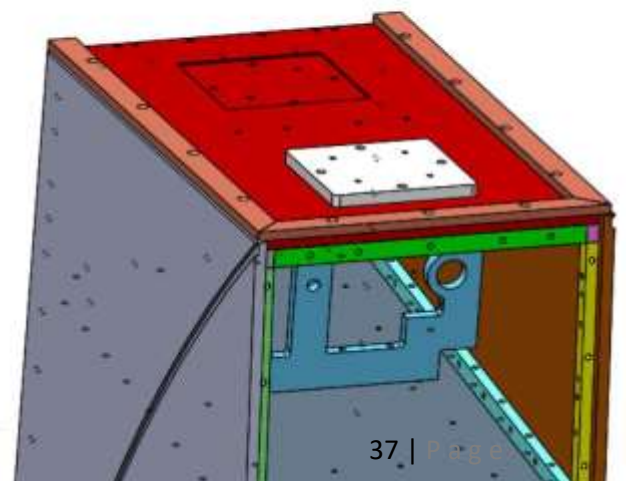
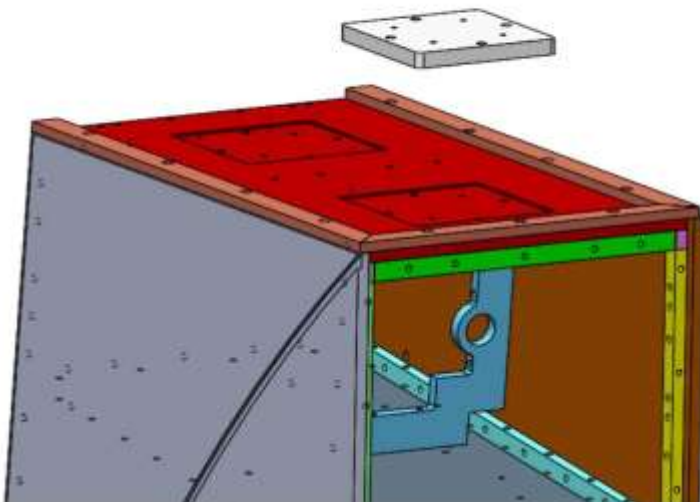
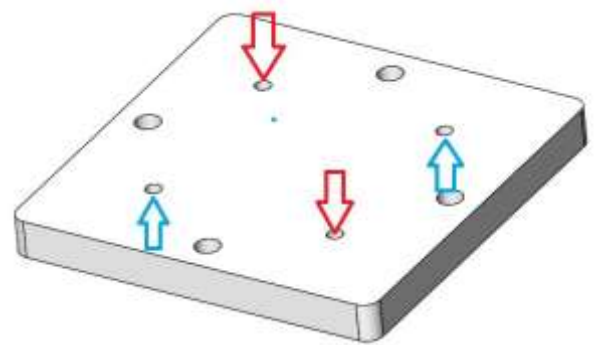
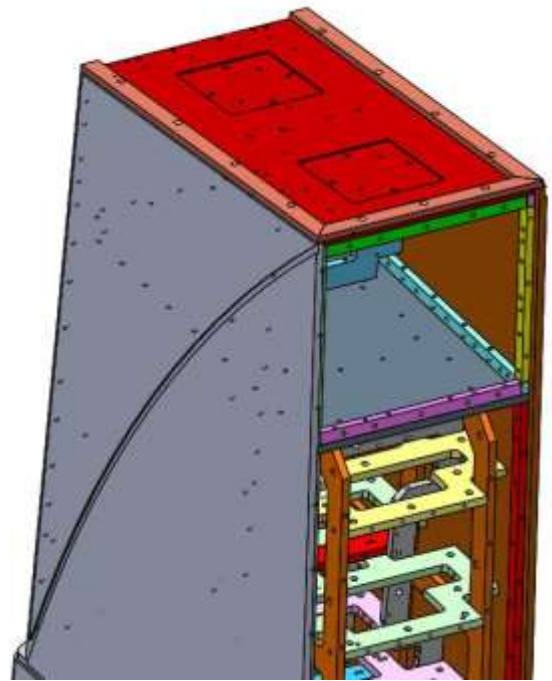
Fasten this copper piece down with 7/8" 10-24 flat counter sink fasteners with red Loctite.

You should now have all 3 pieces of copper framing the top side of the Q7-15.

Using a mallet, hammer 2 pins in to two corners of the Q7-58. Flip this plate over and hammer 2 pins in to 2 opposite corners of the Q7-58.

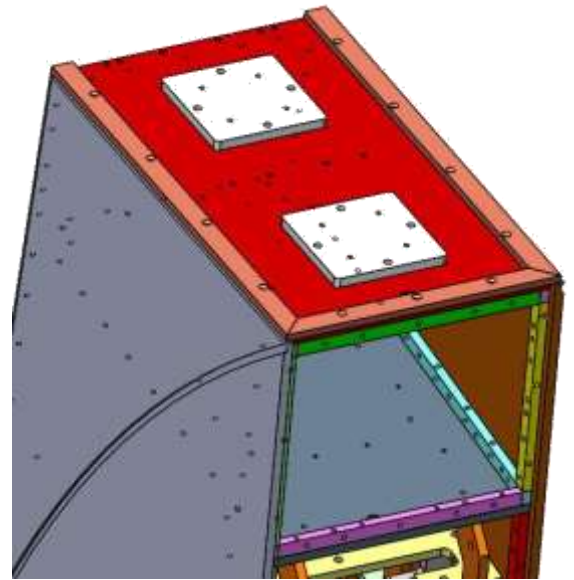
There are reliefs cut out in the -15 plate, place the -58 in to these reliefs and set the pins in the -58 in to the pin holes in the -15.

Place the second -58 in to the second cutout in the -15 plate.



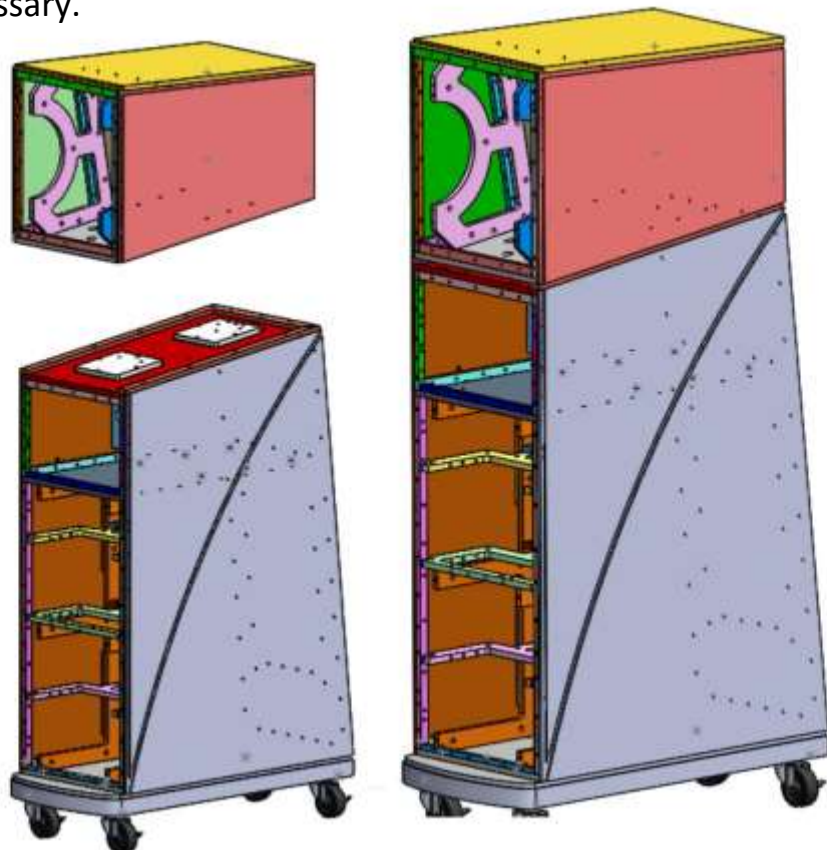
You should now have two -58s set firmly on to the -15 plate.

With help from a strong assembly person, lift the upper half of the cabinet up and well over the lower cabinet. You must be incredibly careful! You should lift far above the lower cabinet. Lower the upper cabinet carefully on to the lower cabinet so that the -58s lock in to the cutouts in the underside of the -13 plate.

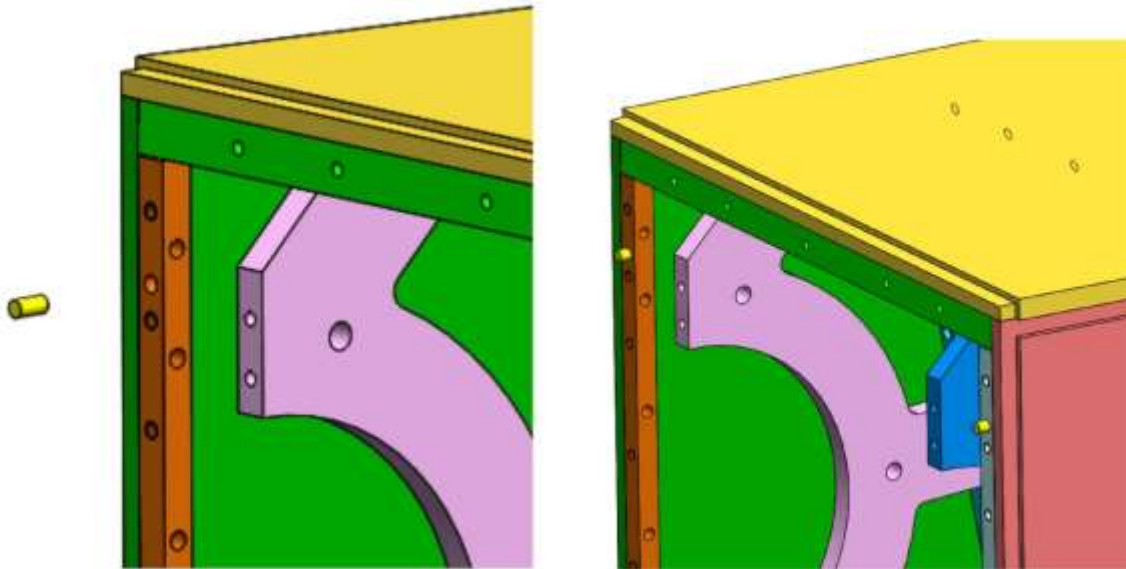


Secure the top half cab to the lower half cab with (8 fasteners - 4 on either side of the cab) 1 1/2" 3/8-16 flat head fasteners with red Loctite. Put Blue painters tape around the cabinet, over the copper to protect it.

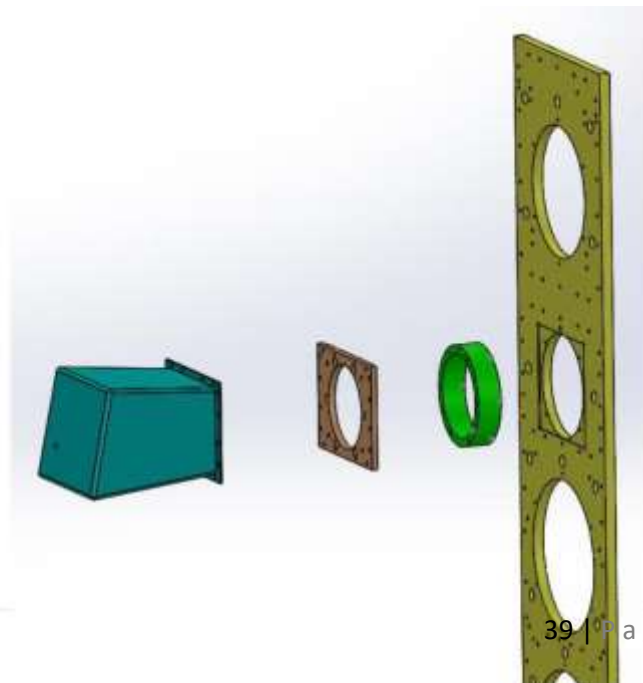
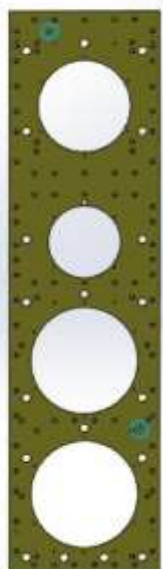
Test fit Q7-61 (Upper Back-plate) in to the back of the Q7 to insure fit, see Rude Dawg, DZ, Saulamander, or another experienced builder if shimming is necessary.



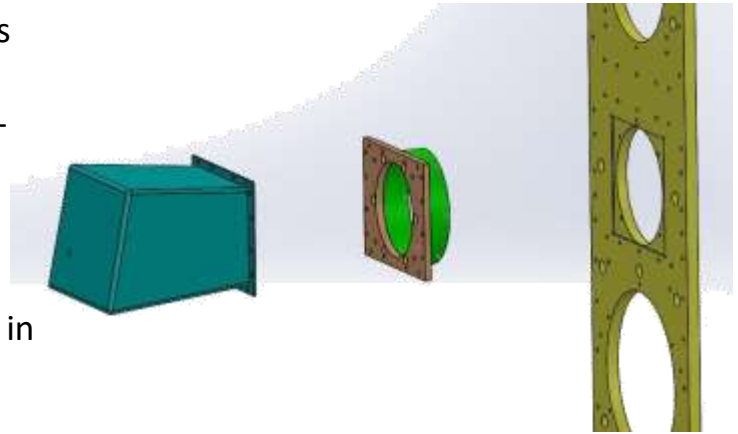
If you haven't followed instructions and you have no pins in the -30 battens, carefully press pins in to the -30 battens, leave them protruding halfway out. Do this carefully as you run the risk of damaging the side plates.



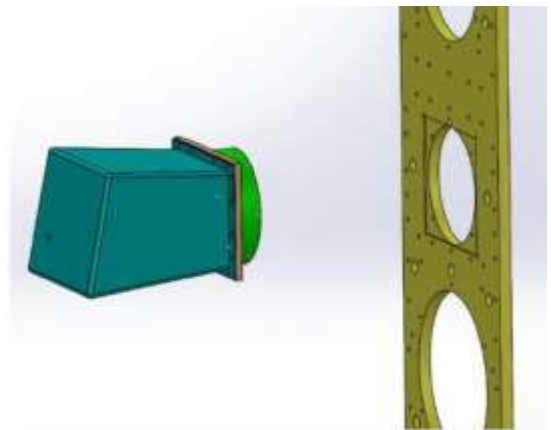
Unwrap, QC, and inspect the Q7-01. Tape over the (2 possibly 4) through holes indicated below with blue circles. Fill with hot glue and seal with Alex +. Now gather the next three parts- Q7-75 Mid Enclosure Box, Q7-72 Isolator Plate, and the Q7-56 Ring. Cover the Mid Enclosure box with Dynamat.



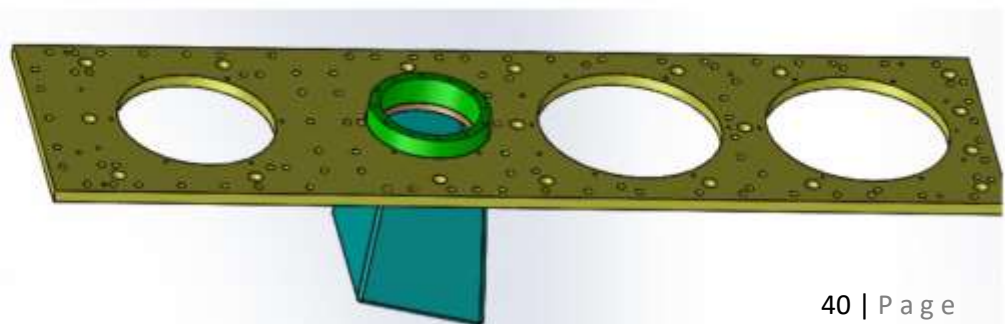
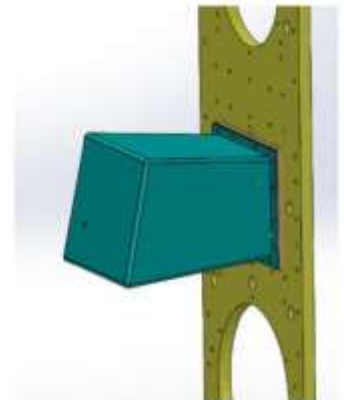
Place (4) 7/8" Counter Sunk bolts that will be covered the ring.
Fasten the Q7-56 Ring to the Q7-72 Isolator Plate with 1/4-20 Flat Socket Cap with red Loctite.
Thread 1/4-20 7/8" Hex Flat Socket Cap fasteners through the wood in the opposite direction.
Sliding the 1/4-20 7/8" Hex Flat



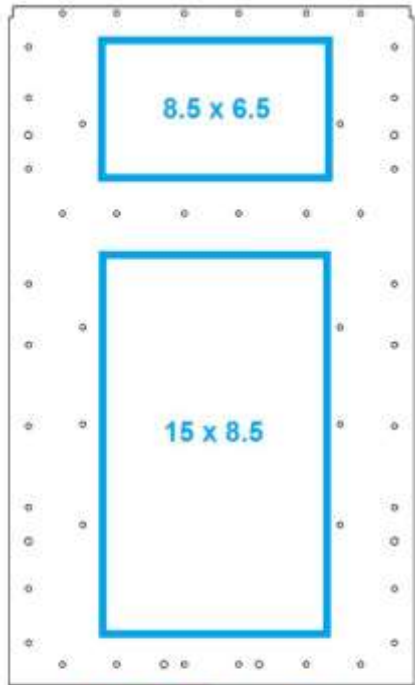
Socket Cap fasteners from the wooden plate through the mid enclosure box. Thread a nut on the mid enclosure box side of the fasteners and with a small wrench over the nut and ratchet, tighten down / fasten the mid enclosure box to the wooden plate.



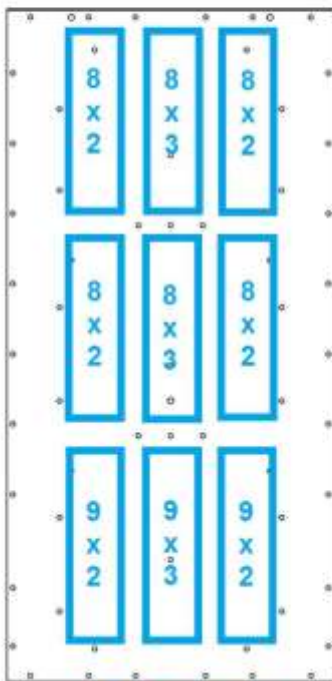
Place sealant over the square cutout and place the wooden plate down in to the square relief cutout. Fasten this down with (4) 1/4-20 1 1/8" fasteners with 2 washers (1 short and 1 slightly larger OD) from the insdie.



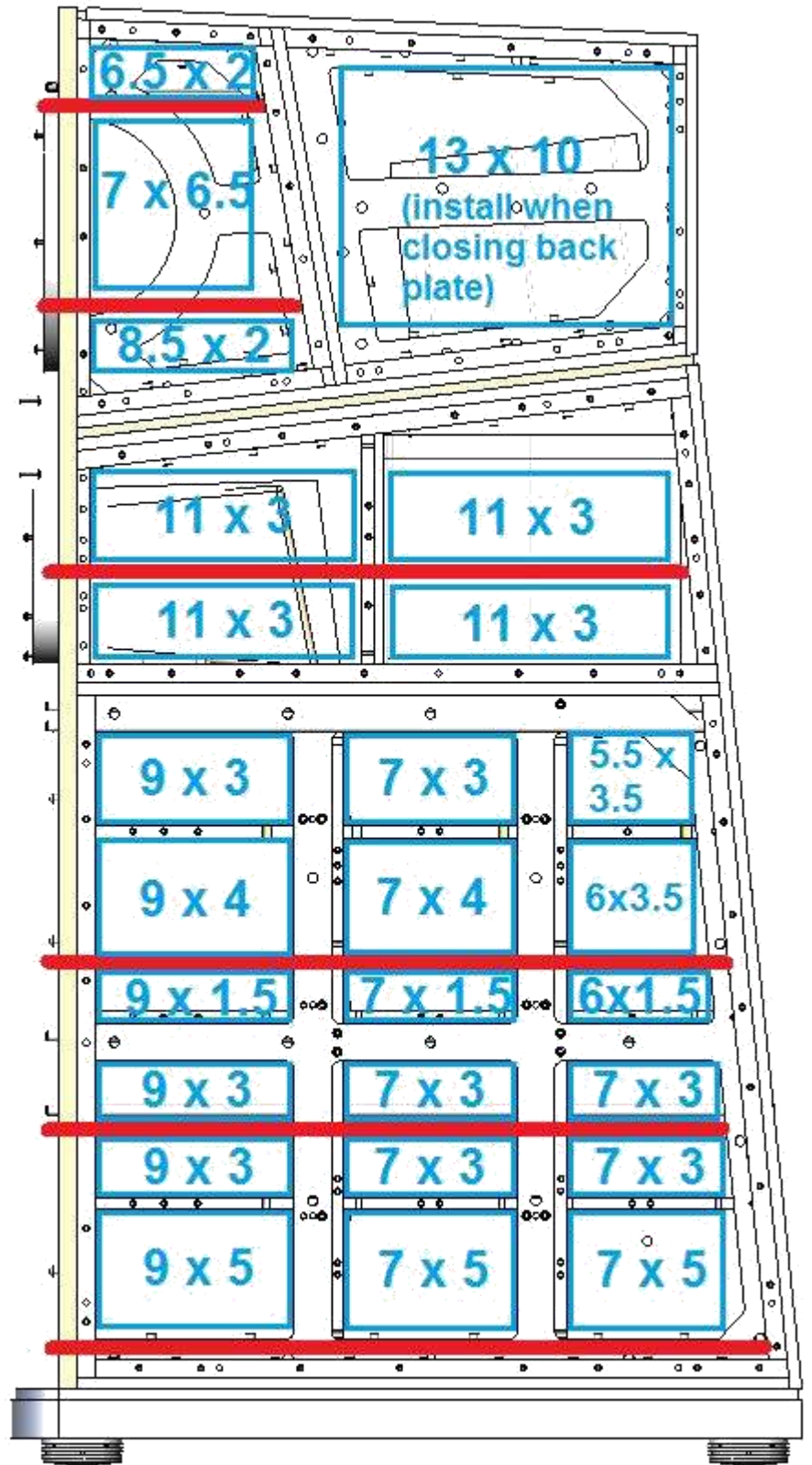
Install BH5 in all places shown

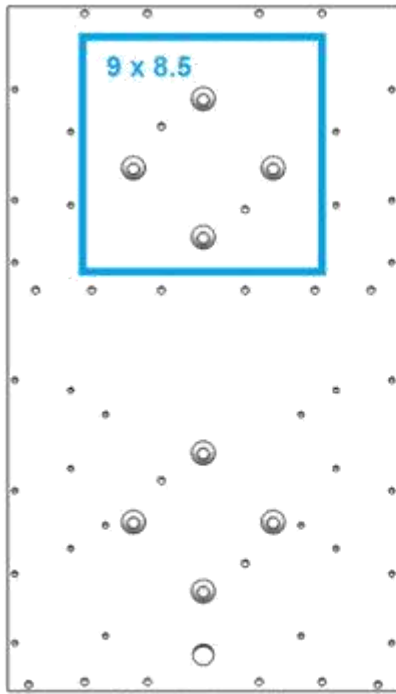


Q7-09 BottomSide

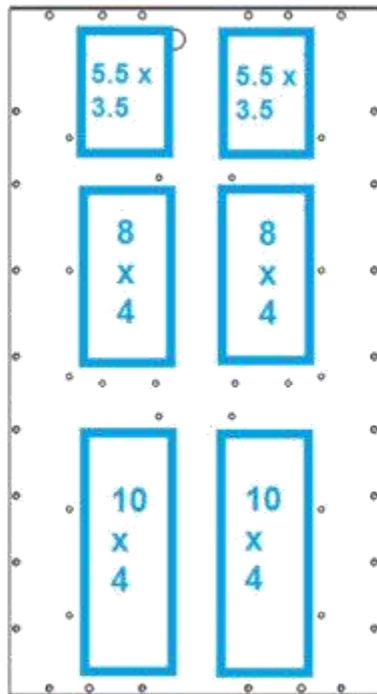


Q7-10 TopSide

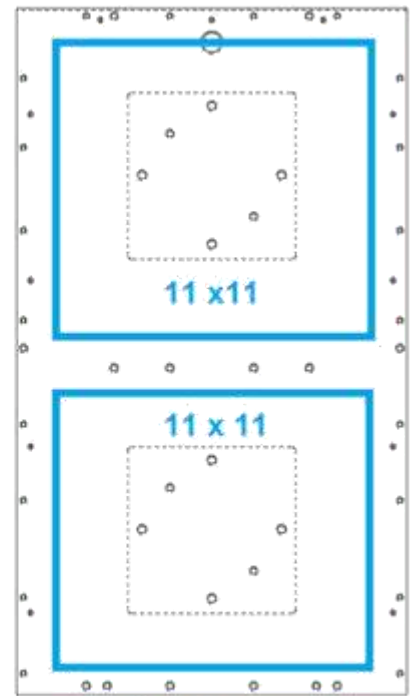




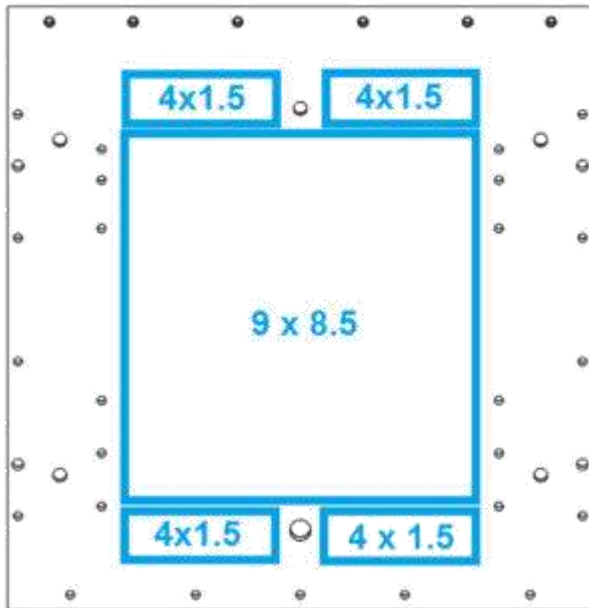
Q7-13 TopSide



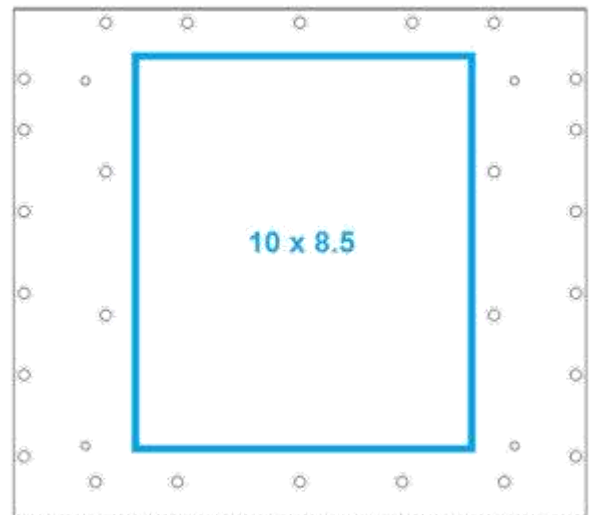
Q7-14 Underside



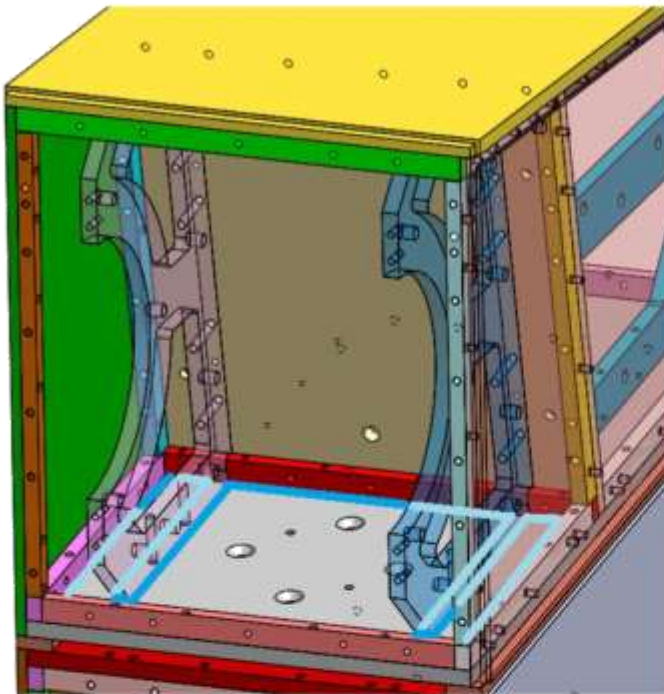
Q7-15 Underside



Q7-19 Front Side



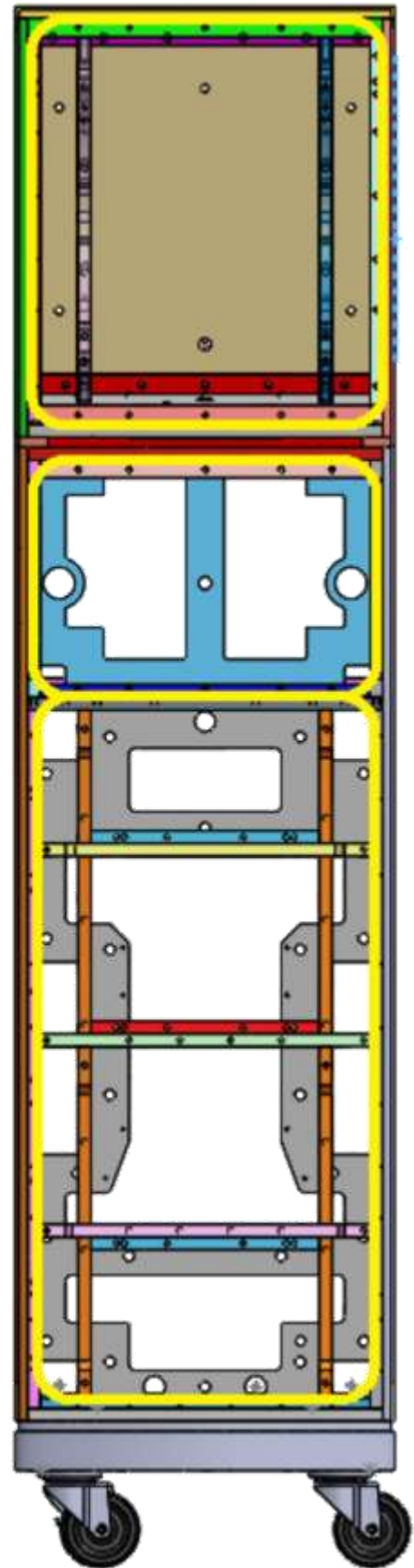
Q7-61 Back Panel



Apply bead of sealant down around the -20 braces: specifically, where they meet with the -13 plate. Seal over flat head fasteners and pin holes.

Use the graphic to the right as a guide for where to place down beads of sealant. This is the front side of the Q7 cabinets. Place a bead of Alex + down at every single joint between a batten and finished plate. You will also have to lay down a few beads in between divider plates to isolate compartments. Make sure all beads are unbroken and thorough.

Keep sealant away from the copper, if sealant does get on the copper clean with a microfiber towel and windex only.



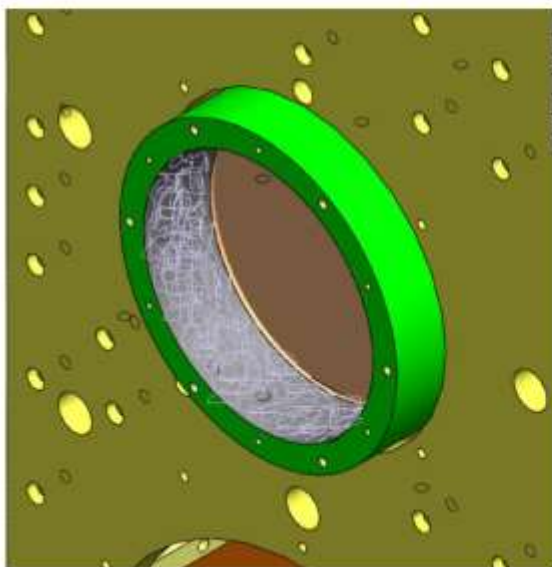
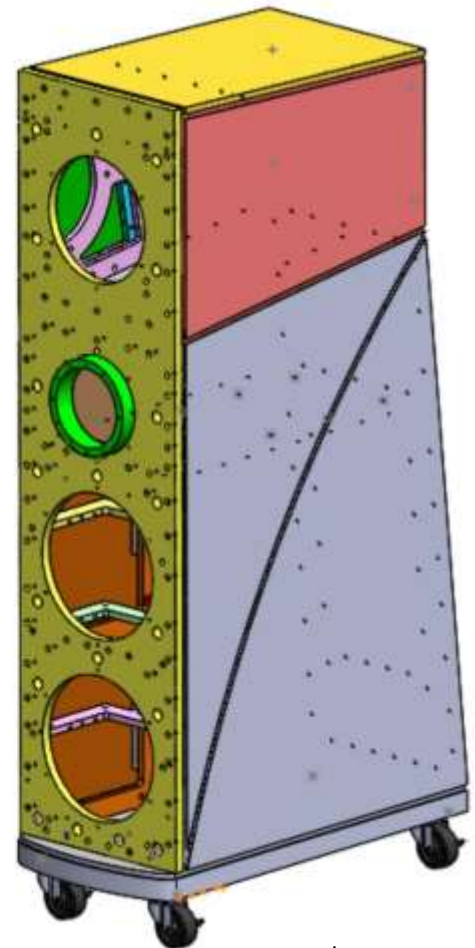
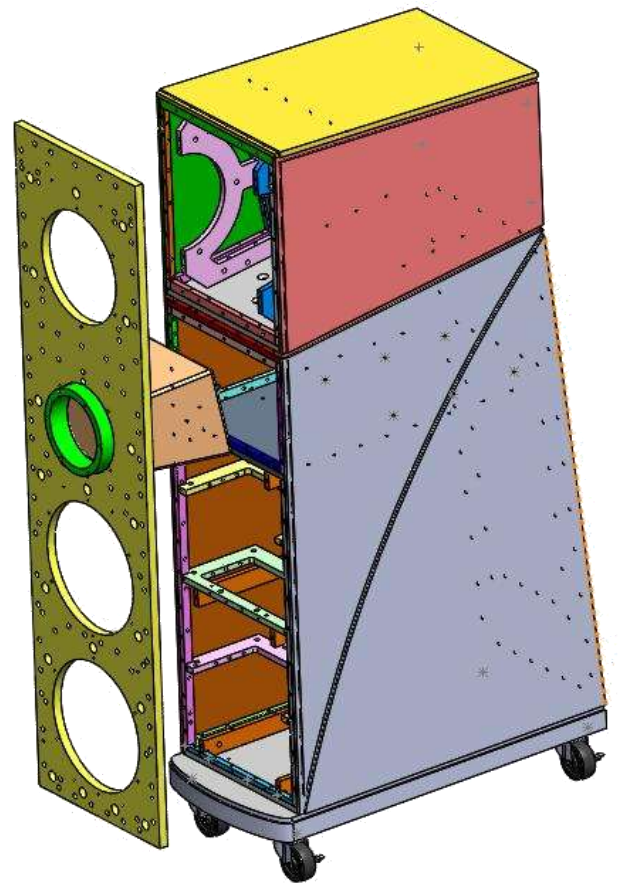
With someone's help, carefully lift and place the -01 assembly on to the cabinet assembly. Line the faceplate up with the two pins coming out of the -70s.

Carefully install/lift the -01 to avoid dinging the Q7-57 (bottom plate). Alex + sealant should squirt out the sides between the -01 and cabinet assembly.

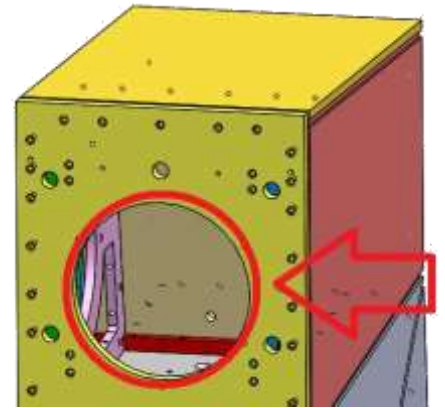
Use (94) ¼-20 1" fasteners with red Loctite to fasten the -01 to the cabinet assembly.

Once fasteners are on and the -01 is fastened to the cabinet, take your ratchet with 3/16 bit and hand torque all 94 fasteners again.

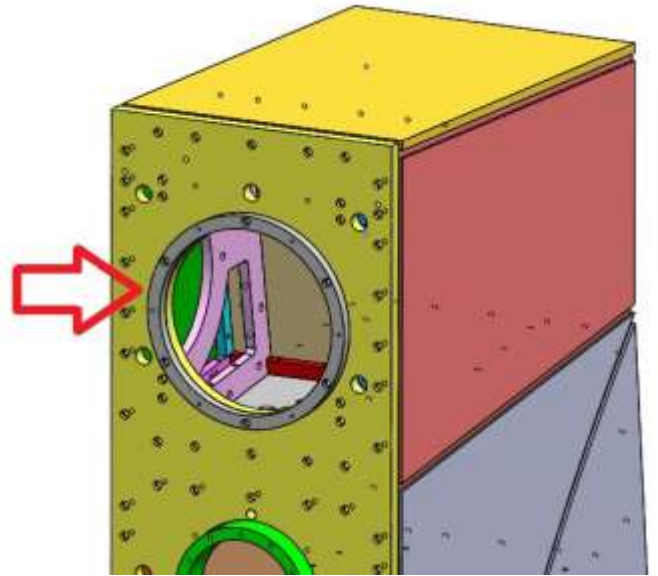
"Beard" the midrange ring-to do this you will apply a layer of sealant to the inside face of the midrange ring and stick a very fine layer of BH Stuff to it.



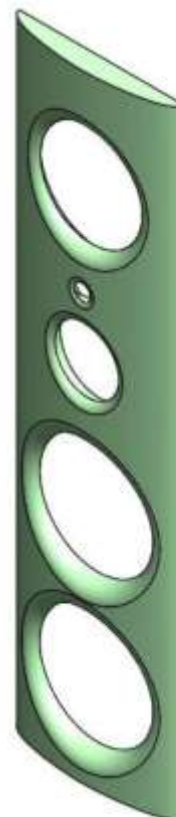
Apply a bead of sealant around the top cutout in the -01. This cutout/hole is the MidBass cutout.



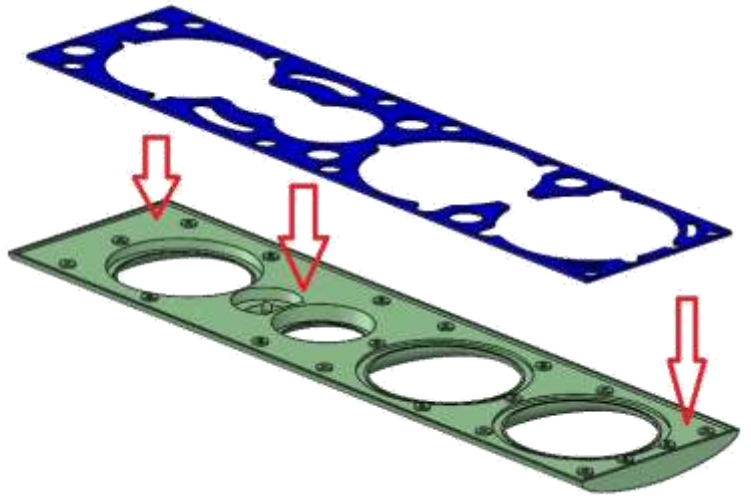
Locate the Q7-55 Ring. Press this ring in to the sealant and fasten down with ¼-20 5/8" fasteners with red Loctite.



QC and inspect the Q7-63 Faceplate. Check all corners and edges for cosmetic defects.

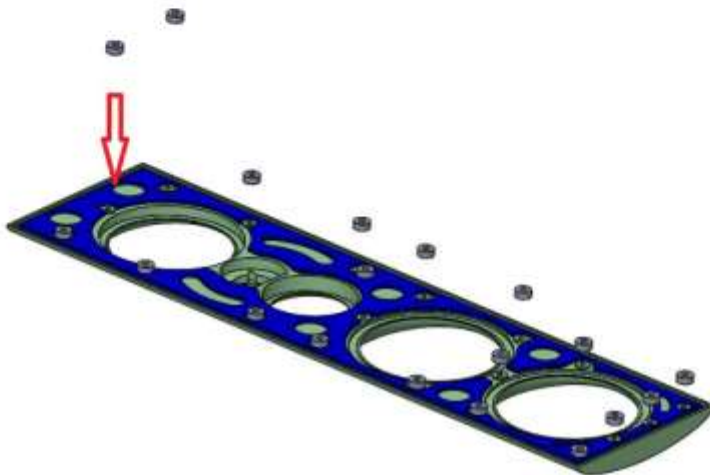


Unpeel and apply the Q7-12 EAR gasket.



Do your best to apply the gasket evenly and concentrically. Make sure no EAR is overlapping bushing shelves or edges.

Unpeel and apply rod bushings to the Q7-63 faceplate. These bushings should sit inside the EAR gasket openings but should also sit on top of the bushing shelf that has been machined in to the faceplate.



Cover all Rods in Dynamat, leaving 1" bare on each end of every rod.

Thread three Q7-R1s in through the bushings at the top of the Q7-63. Use red Loctite on the rod threads.

Thread the two Q7-R7 rods in to the faceplate assembly. Again use red Loctite on the rod threads.

Next thread in the two, much longer Q7-R2s with red Loctite.

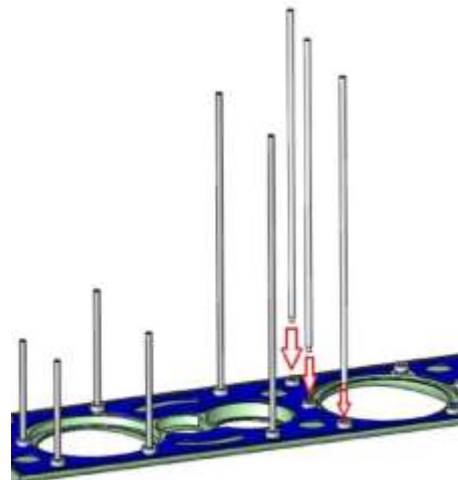
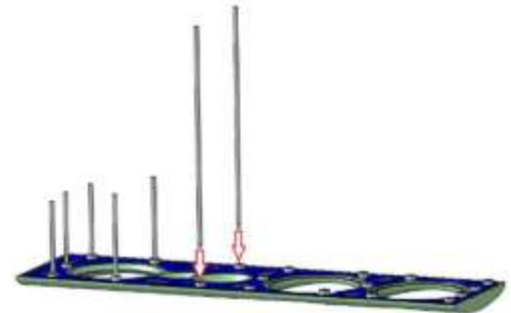
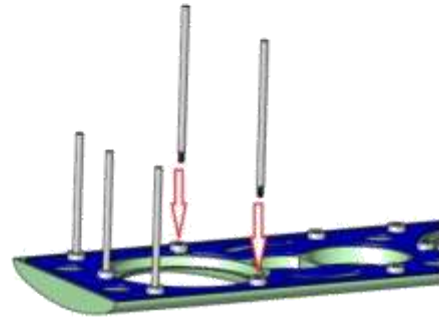
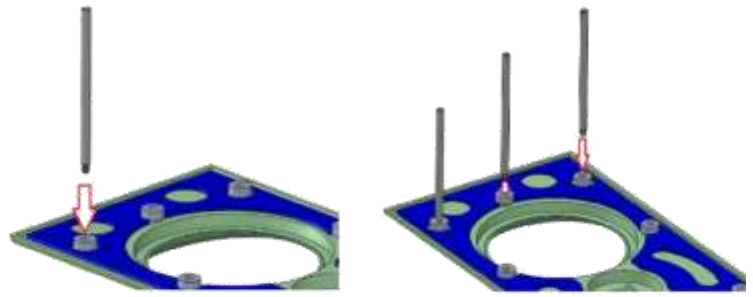
Thread three Q7-R3s in to the faceplate, using red Loctite on each of the rods threads.

Thread two Q7-R4s in to the faceplate with red Loctite on the rods threads.

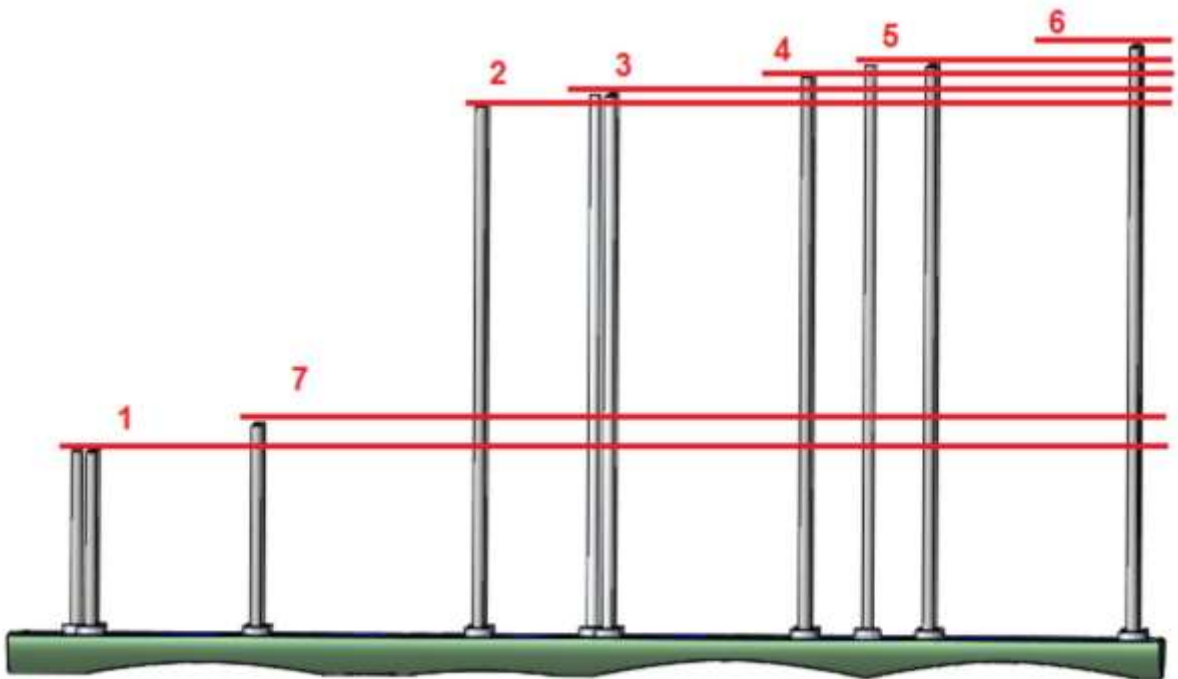
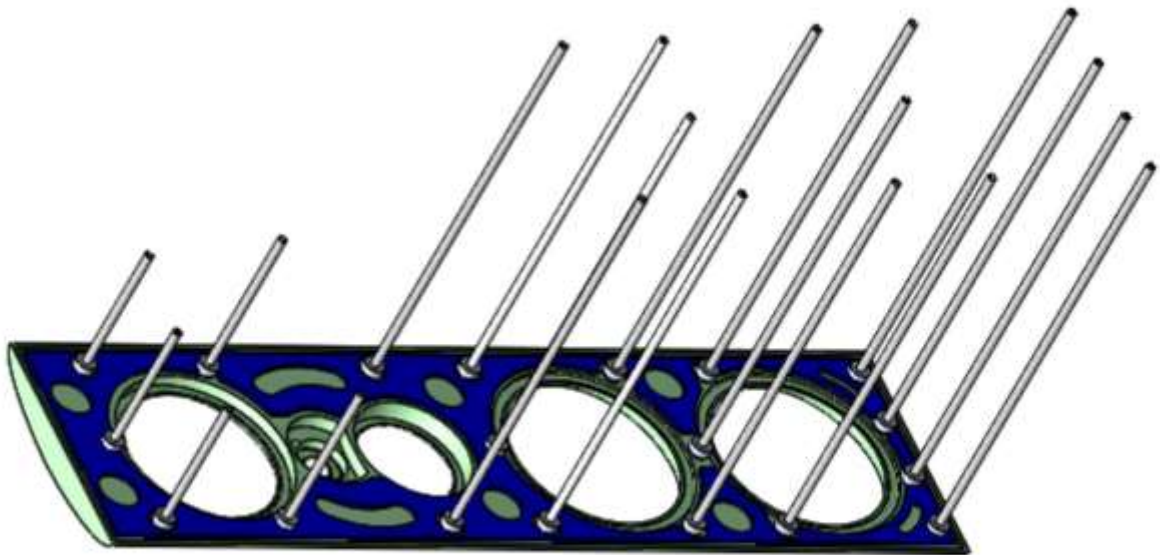
Thread three Q7-R5s in to the faceplate with red Loctite on the rods threads.

Finally thread four Q7-R6s in to the faceplate with red Loctite on the rod threads.

Torque all rods tight with a pair of vise grips.



The faceplate assembly should look like the image below. Look at the assembly from the side to make sure you have all rods in the correct order. If a rod is stickup up past another rod out of order it is a clear indicator that you have installed the wrong rod. Use the graphics below as references.



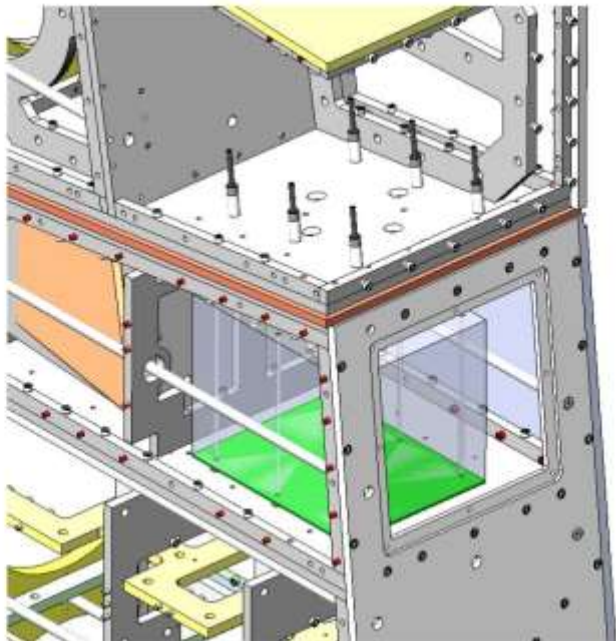
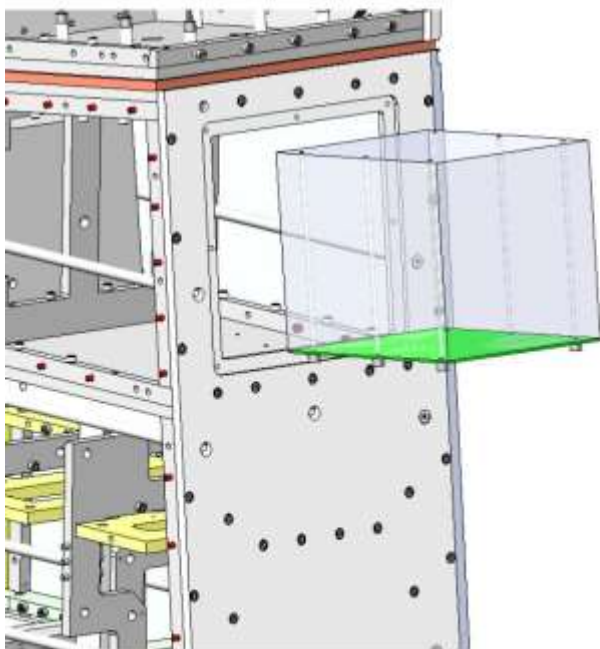
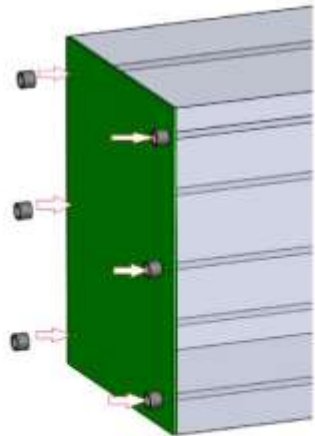
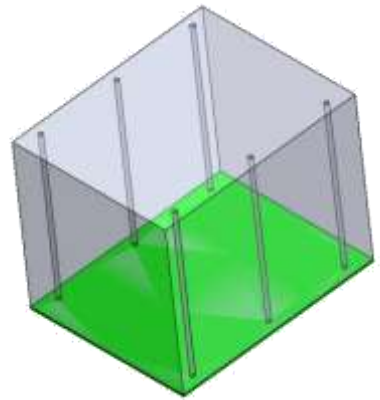
Allow this image of a green box to represent the lower XO.

Separate XO from brown board, dispose of screws. Place EAR on the topside of the brown board- cover 60% of the brown board with EAR. Leave a space uncovered by EAR- this space should be about 4" x 1" and start from the front left corner of the XO. Consult Rudy for details if those were confusing. Hot glue grey half inch spacers to the through holes on the topside of the brown board so that the spacers will sit between the board and XO.

Carefully slide the XO in to the lower XO

compartment.

Fasten XO down to the Q7-14



Route the Bass Output wires and Midbass Output wires. The rest will be routed after the next XO is installed.

Hot Glue and Vinyl on both sides Midbass output wire.

MIDBASS OUT

TWEETER OUT

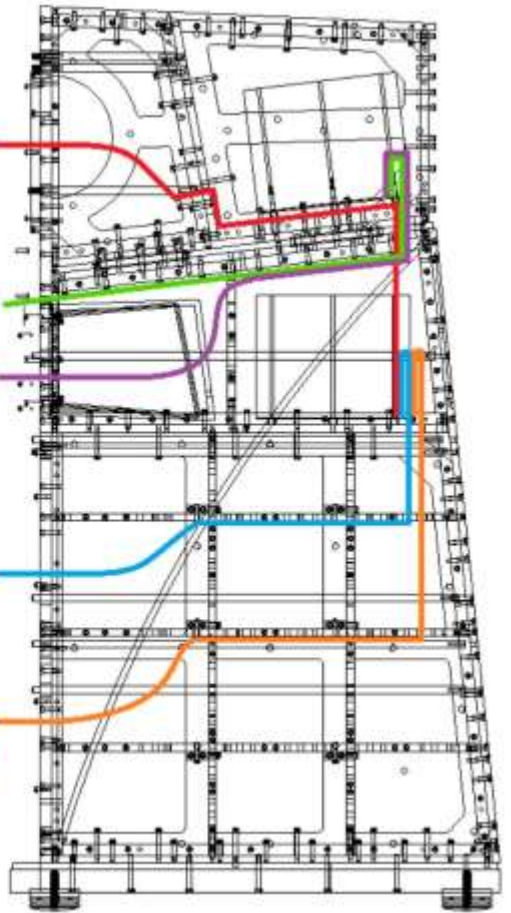
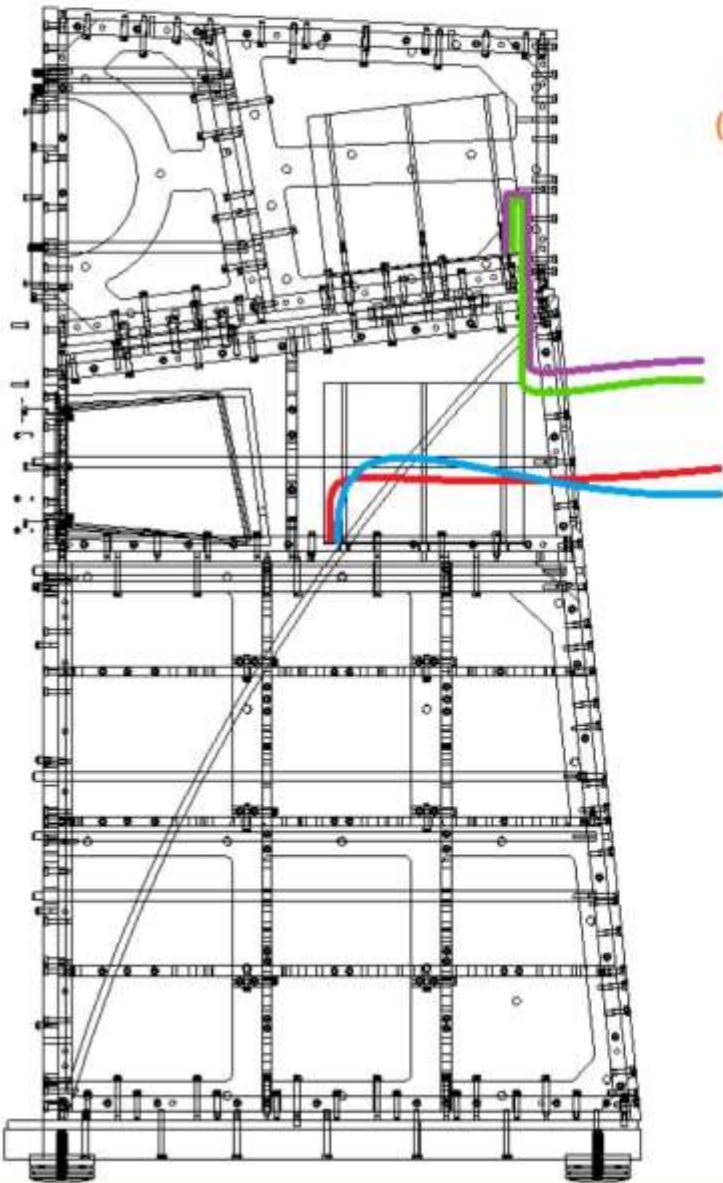
MIDRANGE OUT

BASS OUT

BASS OUT
(longer wires)

Midrange In
Tweeter In

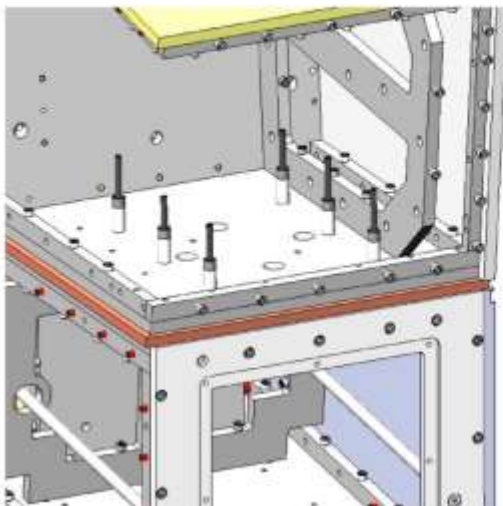
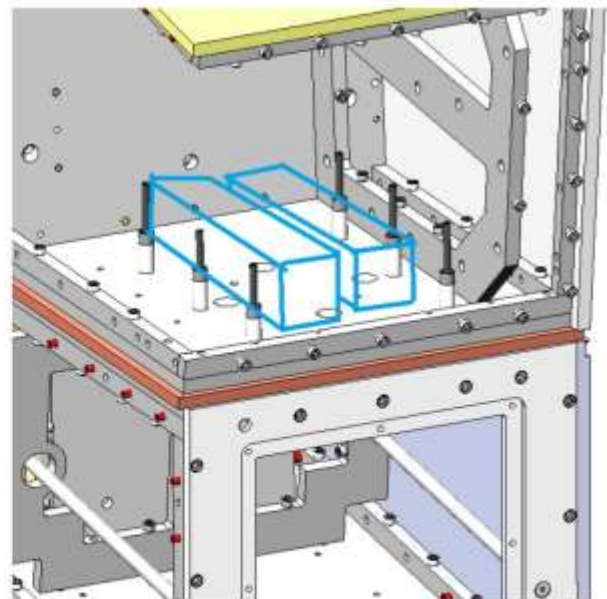
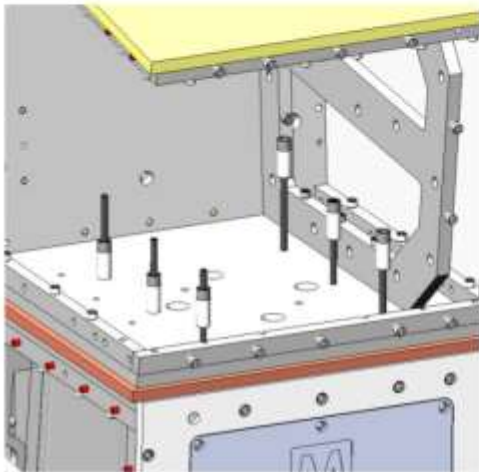
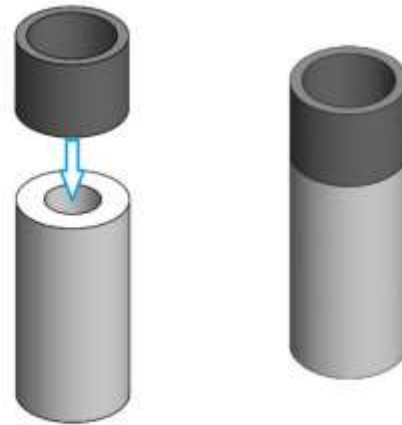
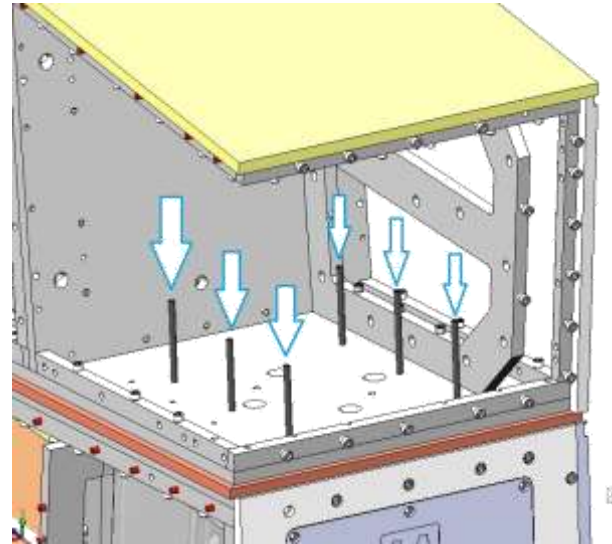
MidBass In
Bass In



Insert ¼-20 3" threaded studs
WITHOUT red Loctite.

Take the 3/8" x 1/2" Grey Round
Spacer and place it over the white
1" x 1/2" White Delrin Spacer. Wrap
electrical tape around the two to
join them together. Make (6)
spacer assemblies.

Place each spacer assembly over a
threaded rod.
Put BH5 scrap between rods.



Enlarge XO holes with X-mas tree bit so that white collar washers can fit.

Unsolder tweeter output wires and replace with new tweeter wires that are 45" long.

Slide the upper XO in to the upper cabinet.

Align the holes in the XO board with the (6) studs that are mounted to the Q7-13 plate.

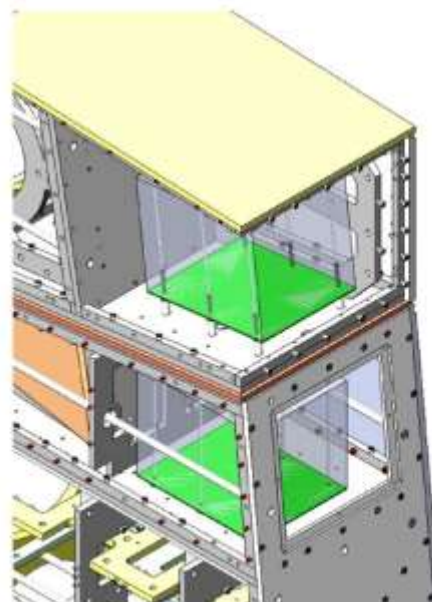
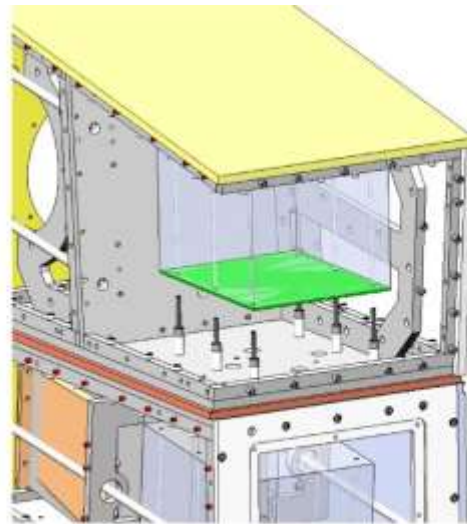
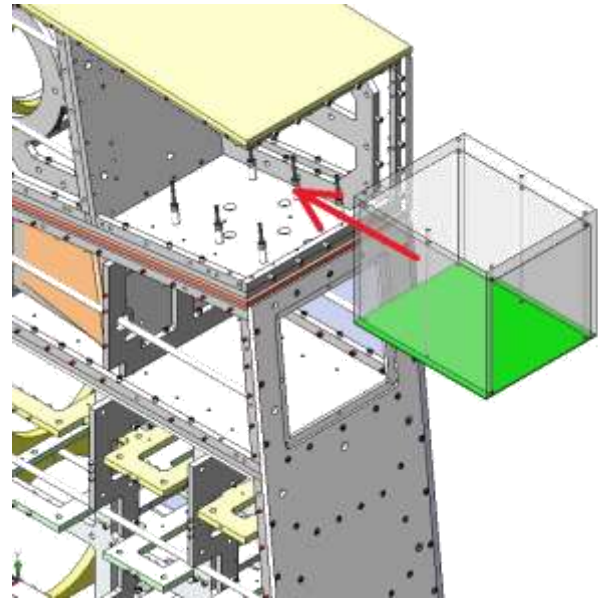
Lower the XO down over the (6) studs.

Once the XO is sitting on the spacers assemblies. Slowly start to remove and replace each stud.

Each stud should be replaced with a ¼-20 1 ¾" fastener with a ¼" x 0.250 molded nylon top-hat washer and red Loctite.

Once the upper XO is mounted firmly in place, start routing the wires. This Xo is responsible for midrange and tweeter inputs and outputs.

Route both wires down through the large hole in the center of the Q7-13 plate. Leave enough slack to create a "service loop" which is 2" loop of extra slack wire.

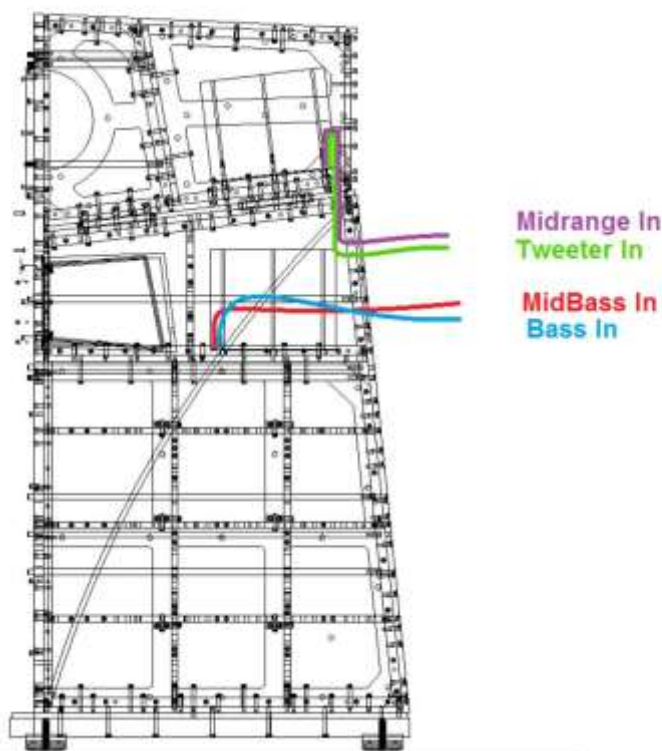
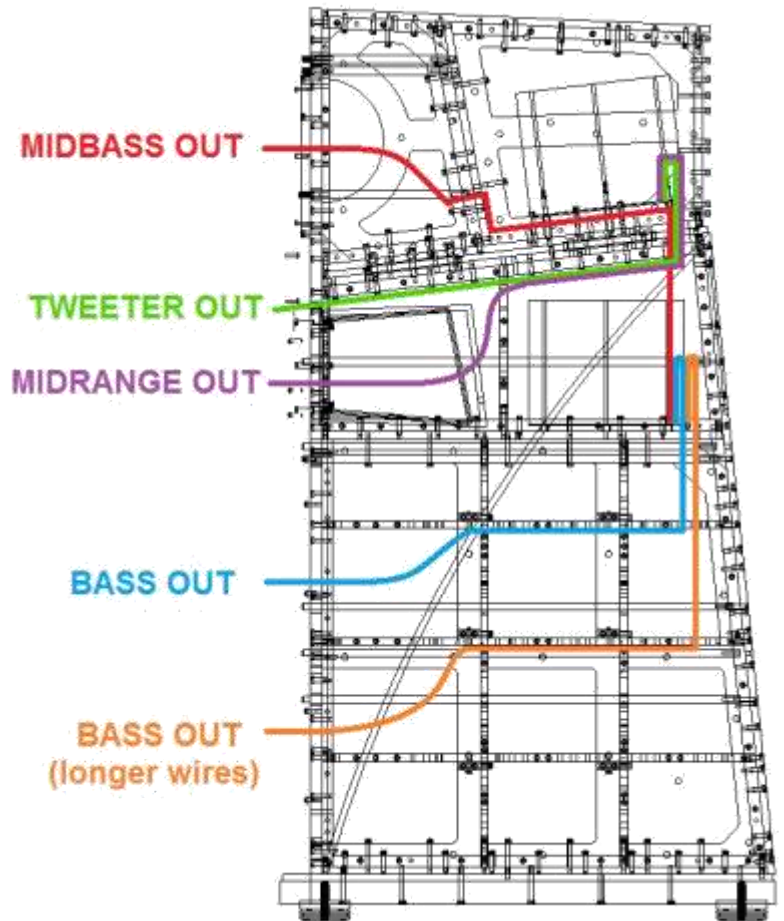


Also route the input wires through this hole and out through the binding post plate cutout.

Hot glue and vinyl wires going through mid-enclosure hole.

Input wires are should be bound together using a pair of linemans pliers, gather all positive input wires in a bundle and twist them in to a tight, neat, bundle. Solder the wires to create a uniform wiring harness. Repeat with the negative input wires.

Stuff 1200g of stuff in to the back of the cabinet. 25g stuff goes in the mid enclosure. NOTE: Keep rod holes / rod pathways clear.



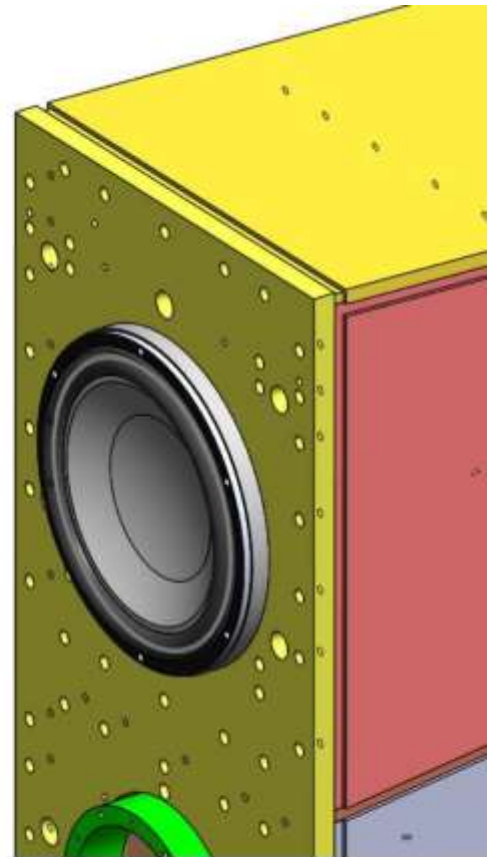
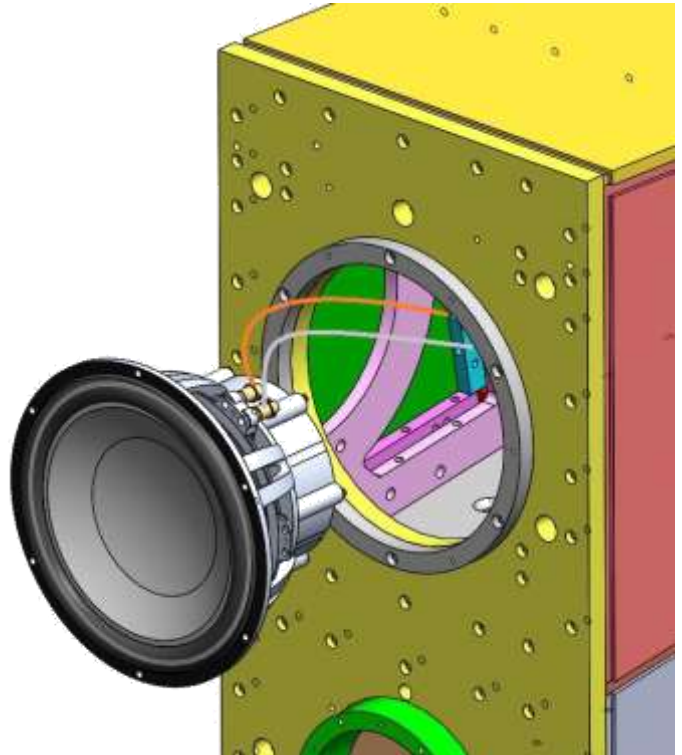
Locate the Mid-Bass Driver. QC the surround and cone for any cosmetic imperfections.

Apply a bead of Alex + to the Q7-55 ring.

Connect the positive output wire to the positive push terminal on the driver.

Connect the negative output wire to the negative push terminal on the driver.

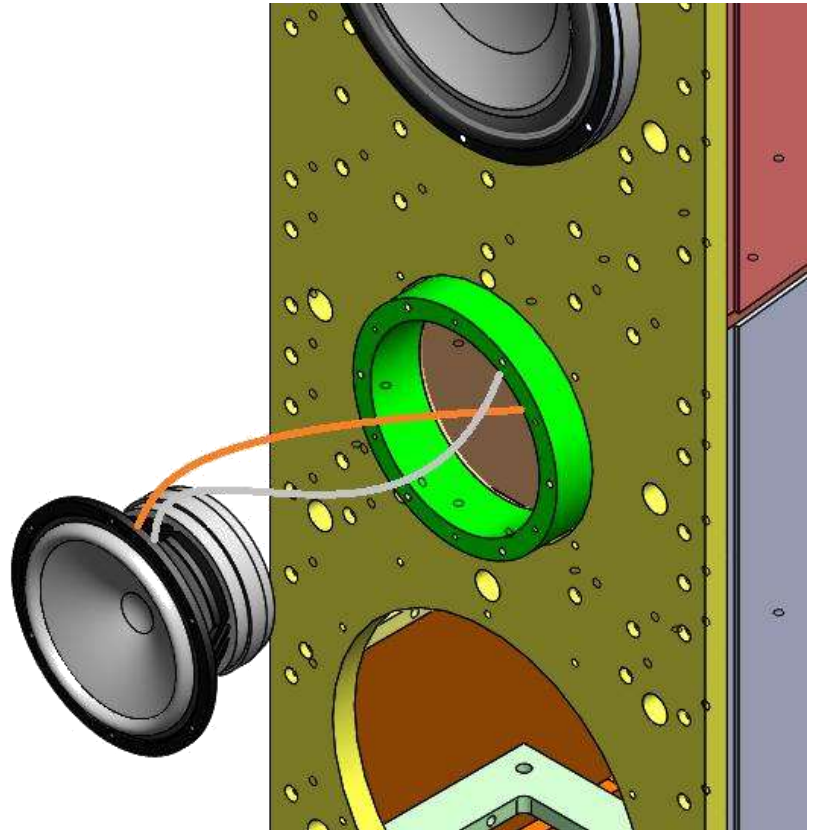
Place the driver against the sealant/-55 ring. Fasten driver down with 10/24 3/4" T25 fasteners with red Loctite.



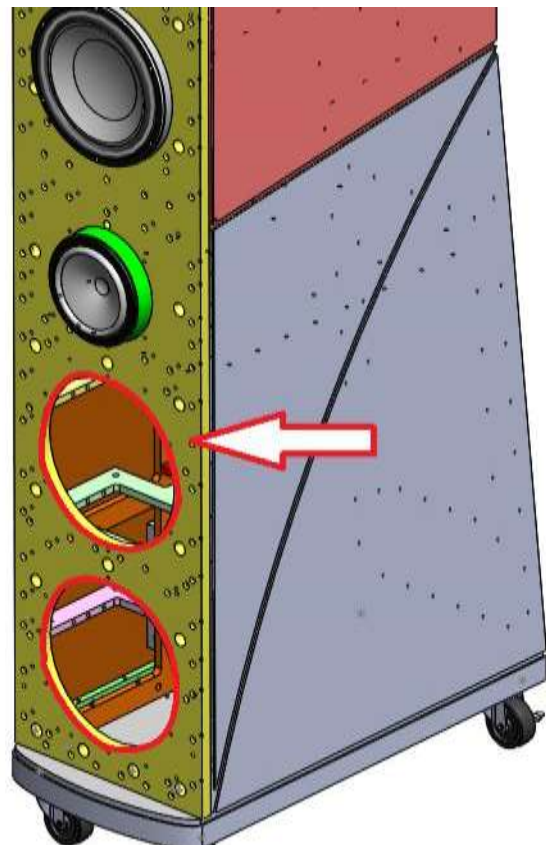
Locate the Q7 Mid-Range driver. QC the surround and cone for cosmetic defects.

Line the mid enclosure with scrap pieces of BH5.

Solder the positive wire to the positive terminal and the negative wire to the negative terminal. Solder at 750*. Fasten the midrange driver with 8/32 1" fasteners with red Loctite.



Apply a bead of Alex + around each of the bass cutout holes.

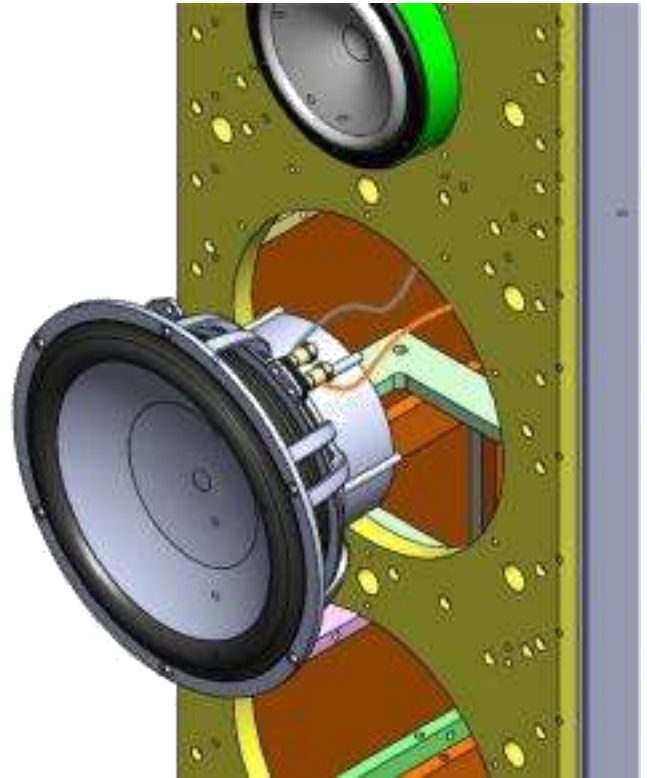


Now you will install Bass Drivers.

QC Bass Driver surrounds and cones for cosmetic defects. Start by installing lower bass driver.

Connect positive wire to positive push terminal.

Connect negative wire to negative push terminal.



Push driver up against sealant bead.

Fasten driver down with M6 5/32 SS fasteners with red Loctite.

Repeat the steps above and install the next bass driver (upper).

Make sure rod holes are clear of bass wires.



Line the rear batten/plate joints with white weather strip.

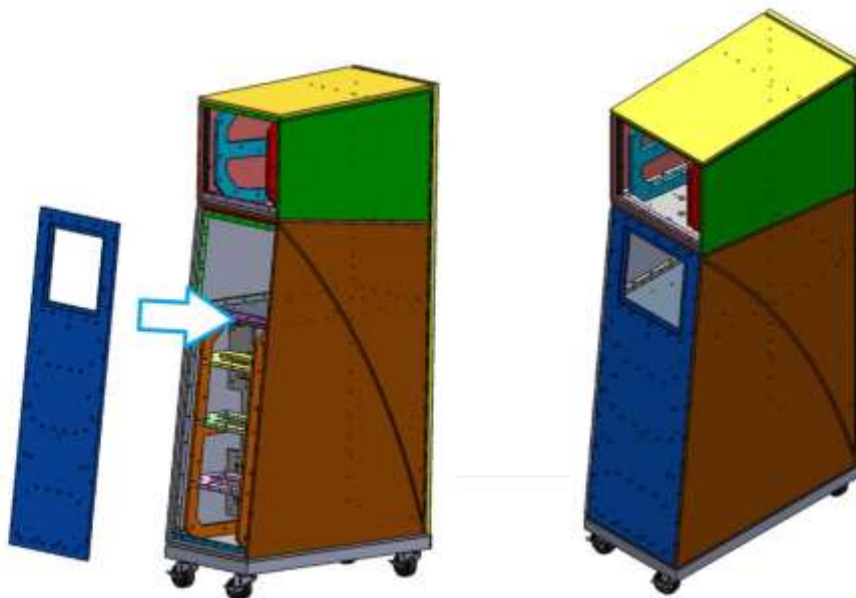
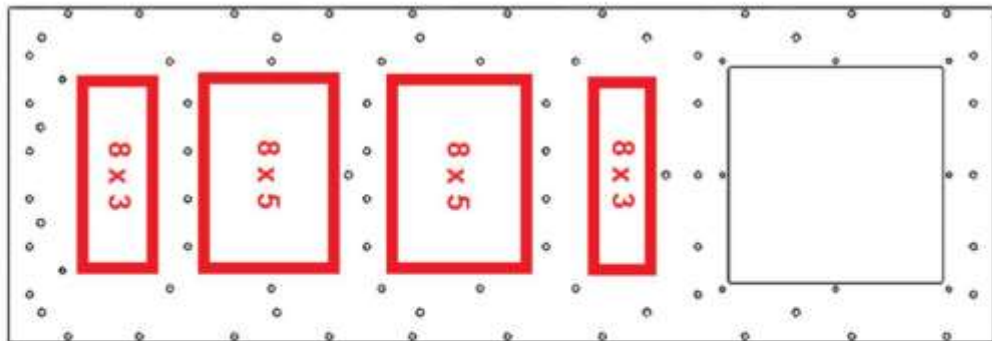
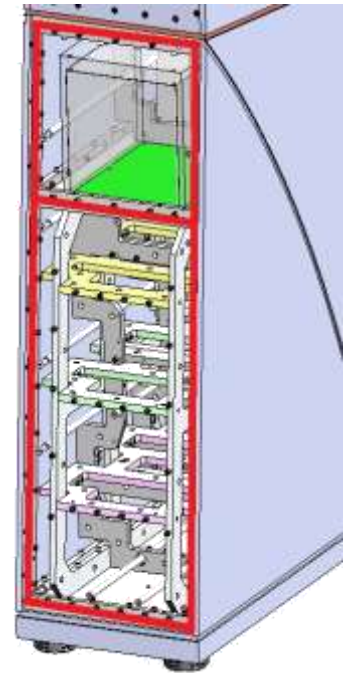
QC and inspect the Q7-62 Lower Back Plate. Check corners and edges for cosmetic defects. Check color shade to make sure it matches its partner.

Apply BH5 to the Q7-62.

Slide the -62 in to the cabinet, carefully place the top corner in first, carefully, underneath the copper. Once firmly placed, carefully push/tap the middle and bottom of the plate in to place.

Fasten plate down with ¼-20 ¾" BO fasteners with red Loctite.

Leak test cabinet. Cover all rod holes, front and back of the cabinet (-01 /-62) and inside of upper cabinet. See Rudy for Clip in instructions.



Carefully slide Q7-63 Faceplate in to cabinet with the help of another person.

Leave about a foot between the Q7-63 Faceplate and the Q7-01.

Strip the tweeter wires and scrape away any lacquer. Bend the bare copper ends in to "U" shapes. Place over tweeter leads and gently clamp down with needle nose pliers.

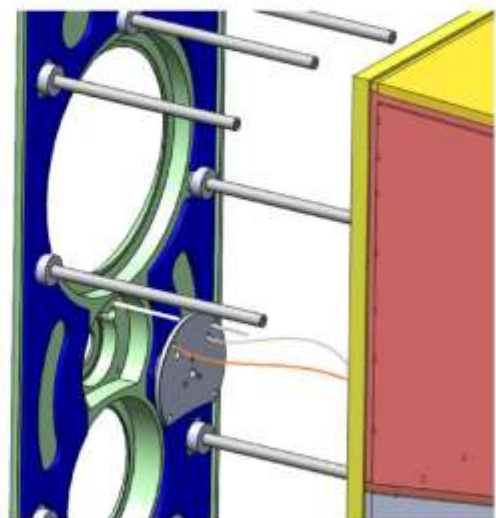
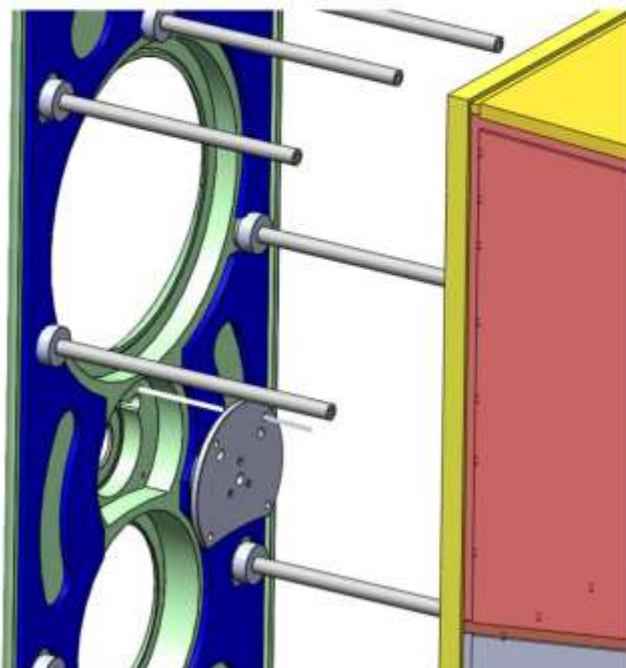
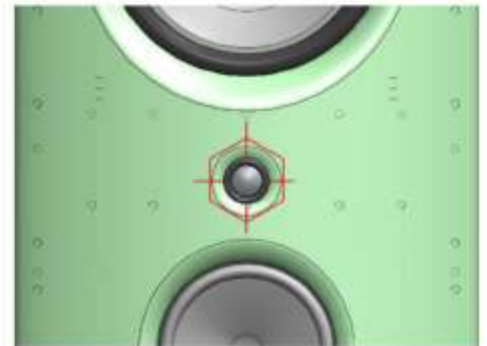
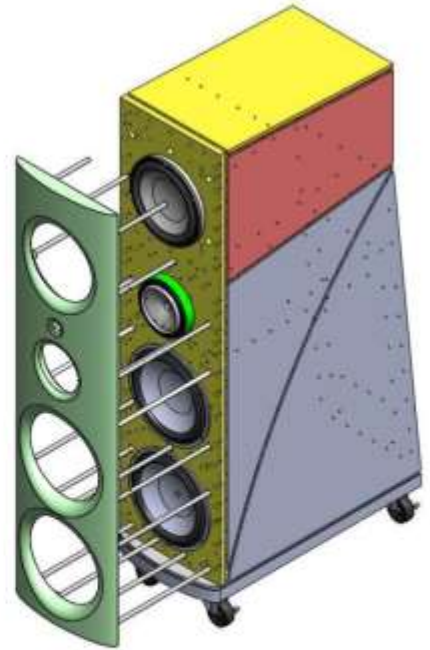
With the new MBD5D tweeter, you can install it and then solder output wires to it.

If faceplate has been re-machined, the Q7-64 ring is required.

Start by mounting tweeter with 10/24 1/2" Hex Button Top (2150 mfg bin)

Center the tweeter and tighten / secure the tweeter in place. Do not overtighten as these tweeters are sensitive to pressure. Only fasten down hand tight (just using fingers on a driver and bit).

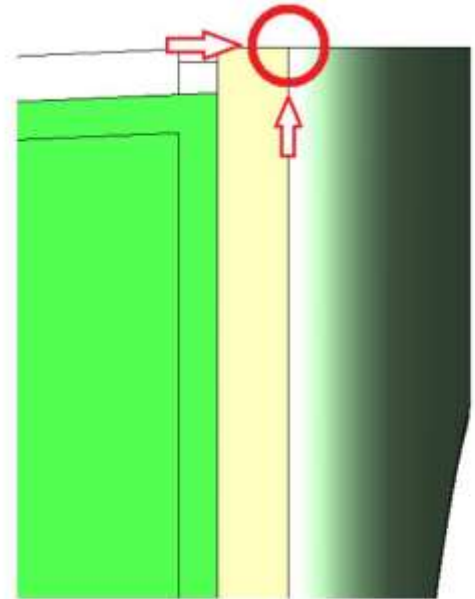
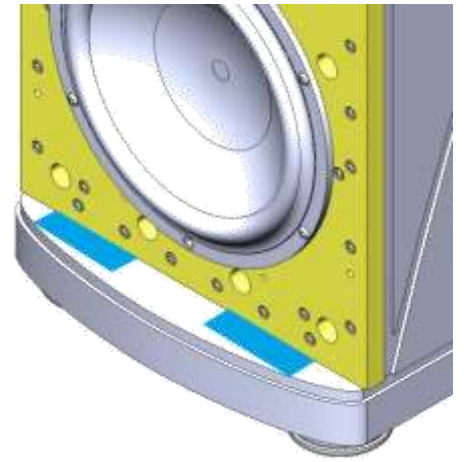
Set soldering iron to 650* and solder. (Tweeter leads may require flux)



Place tape down on topside ledge of baseplate. Cut 2 pieces of gaff tape 1" x 3", cut 4 pieces of blue painter's tape 1" x 3". Place down gaff tape first and then cover with 2 pieces of blue painter's tape.

Slowly push faceplate back to close up the front of the cabinet. You have to lift faceplate as you push it in to get it over the layers of tape and avoid hitting the base-plate. Those layers of tape should allow the faceplate to sit flush with the -01.

Make sure faceplate corners are flush with the -01. If faceplate sits lower than -01, pull the faceplate open and add more blue painters tape. Once flush, insert all rod bolts, do not forget the x5 in the upper cab.



Locate, unwrap and QC Q7-78.

Unwrap and QC Binding Posts.

Remove set screw near ends of binding posts, set aside to use again later.

Remove internal collar from binding post.

Remove Lock nut from binding post using a 14mm wrench. Install binding posts in to Q7-78, black on left and red on right.

Reinstall lock nut but do not overtighten, it is possible to crack the plastic washers.

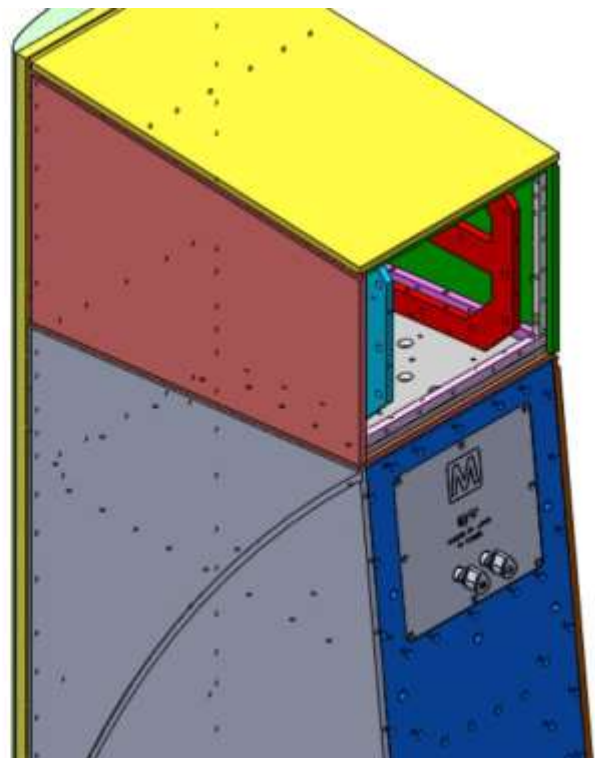
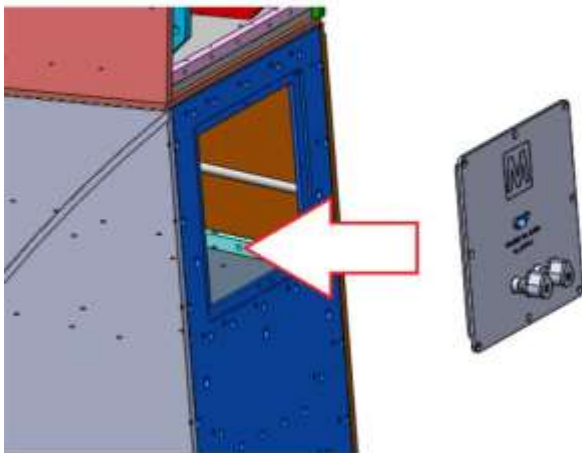
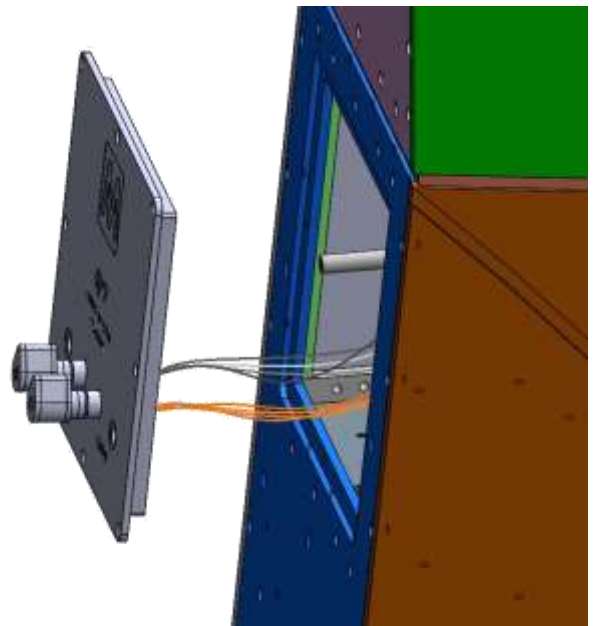


Solder all wires together into a new bundle.

Insert wire bundles into corresponding binding posts.

Reinstall set screw and clamp down on input wires. Make this snug tight so that these wires will not come out when tugged on but do not overtighten with allen wrench because these threads are prone to stripping.

Close binding post plate and fasten down with $\frac{1}{4}$ -20 $\frac{3}{8}$ " Low Head fasteners with red Loctite.



Insert remaining BH5 in upper cabinet on the side plates.

Locate and unwrap Q7-61. QC for cosmetic defects. Notice that one edge has a slight angle cut into it. The angled side will be the downward side.

Carefully place this plate in to the cabinet, angled side first, until its leading edge touches the copper. **IMPORTANT:** it should not touch the face of the copper, but rather it should be resting on the unfinished topside / upper surface of the copper.

Carefully and gently tap this plate in to the cabinet. Fasten down with ¼-20 ¾" BO fasteners with red Loctite.

Re-tighten all fasteners by hand to ensure a uniform torque was applied across all bolts.

Re-Tighten rod bolts.

