

ASSEMBLY GUIDE

F/A-18C Ejection Seat Replica

Seat base, backrest, parachute box, and rear-cover assembly



Reference configuration shown. Your supplied revision and installed controls may differ.

Version 2.0 / August 2026 | Customer assembly documentation

Use this guide with the packing list supplied for your order. Hardware revisions can change. If a part, fastener, hole pattern, or extrusion differs from the photographs, stop and contact Dogfight Dynamics before modifying it.

Before you begin

This guide covers the standard Dogfight Dynamics F/A-18C simulator-seat structure: the 3030-profile seat base, side plates, backrest, parachute-box frame, 40120 extensions, and rear cover.

Simulator hardware only. These products are cockpit-simulator components. They are not aircraft parts, emergency equipment, certified seating, steps, or access handrails.

Work area and preparation

- Lay out the seat-base and parachute-box parts separately before assembly.
- Confirm the 3030, 2020, and 40120 profile groups before installing fasteners.
- Insert every sliding T-nut shown in the diagrams before closing the corresponding profile end.
- Protect painted panels and upholstery surfaces from sharp extrusion ends.
- Keep the seat supported on a stable work surface until the base and backrest are fully joined.

Tools

- Metric Allen keys for M8 x 16 mm and supplied profile fasteners.
- Metric socket or wrench set where locking nuts are supplied.
- Carpenter's square and tape measure.
- Safety glasses and work gloves.

Hardware to identify

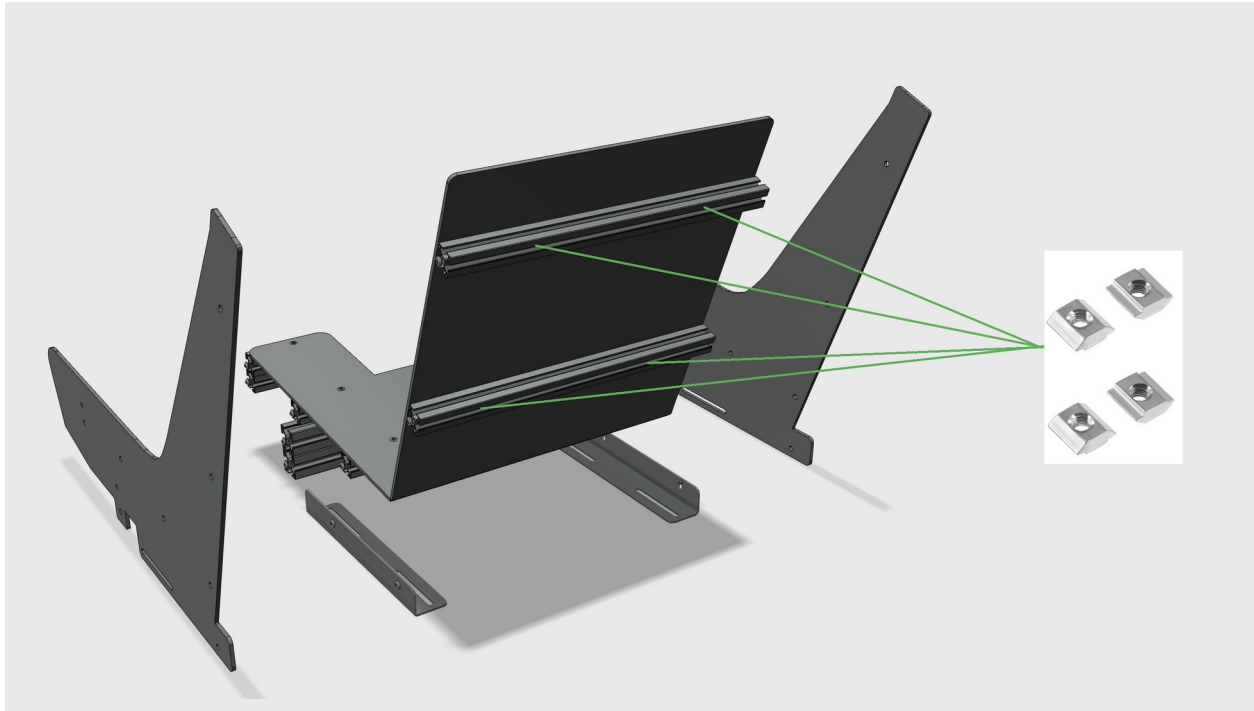
- 3030 profiles and sliding T-nuts for the seat base.
- M8 x 16 mm bolts for the side-panel and rear-cover connections shown.
- 2020 profiles and fasteners for the parachute-box frame.
- 40120 extension profiles with linear 3030 connectors.
- Four L-bracket connectors for joining the parachute box to the seat base.

Two-person lift recommended. Use a second person whenever a large panel, seat assembly, or chassis member must be held square while fasteners are started.

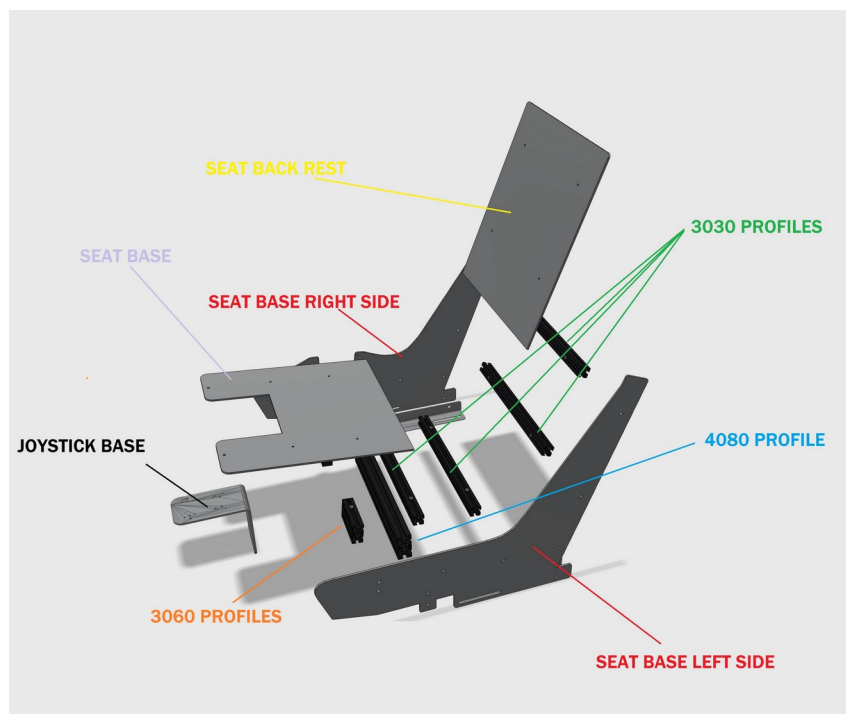
Step 01 / Prepare the seat-base profiles

1. Identify the 3030 profiles used by the seat base and orient them as shown.
2. Insert all required sliding T-nuts before attaching either side plate.
3. Place four additional sliding T-nuts at the rear of the illustrated profile pair for later connections.

Stop and verify. A missing trapped T-nut can require partial disassembly later. Count the rear T-nuts before continuing.



Exploded seat-base profile layout and T-nut locations.

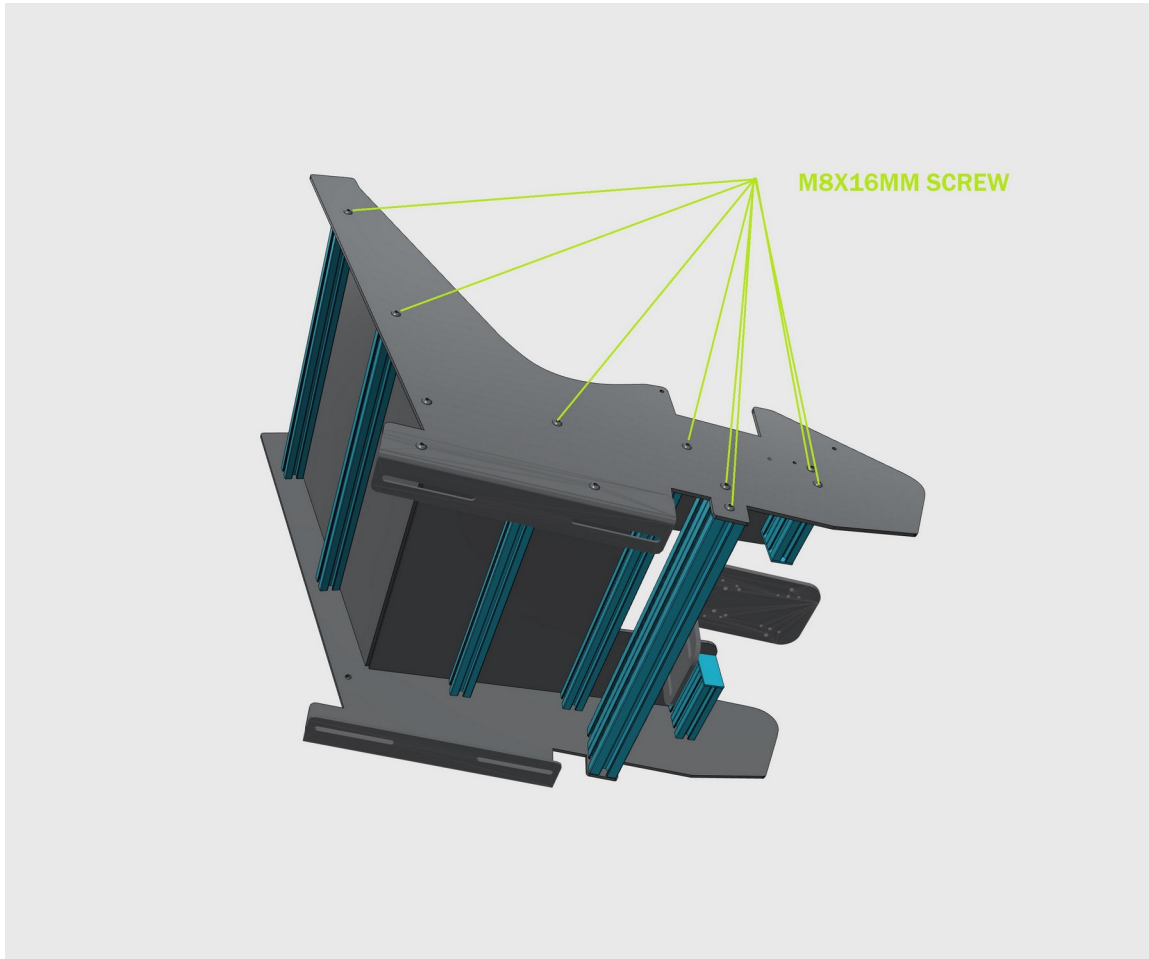


Seat-base components and profile identification.

Step 02 / Attach the seat side panels

4. Align the left and right side panels with the seat-base profiles.
5. Install the M8 x 16 mm bolts finger-tight.
6. Square the panels to the profiles and tighten the fasteners evenly from side to side.

Field note. Do not fully tighten one side before the opposite panel has been aligned.

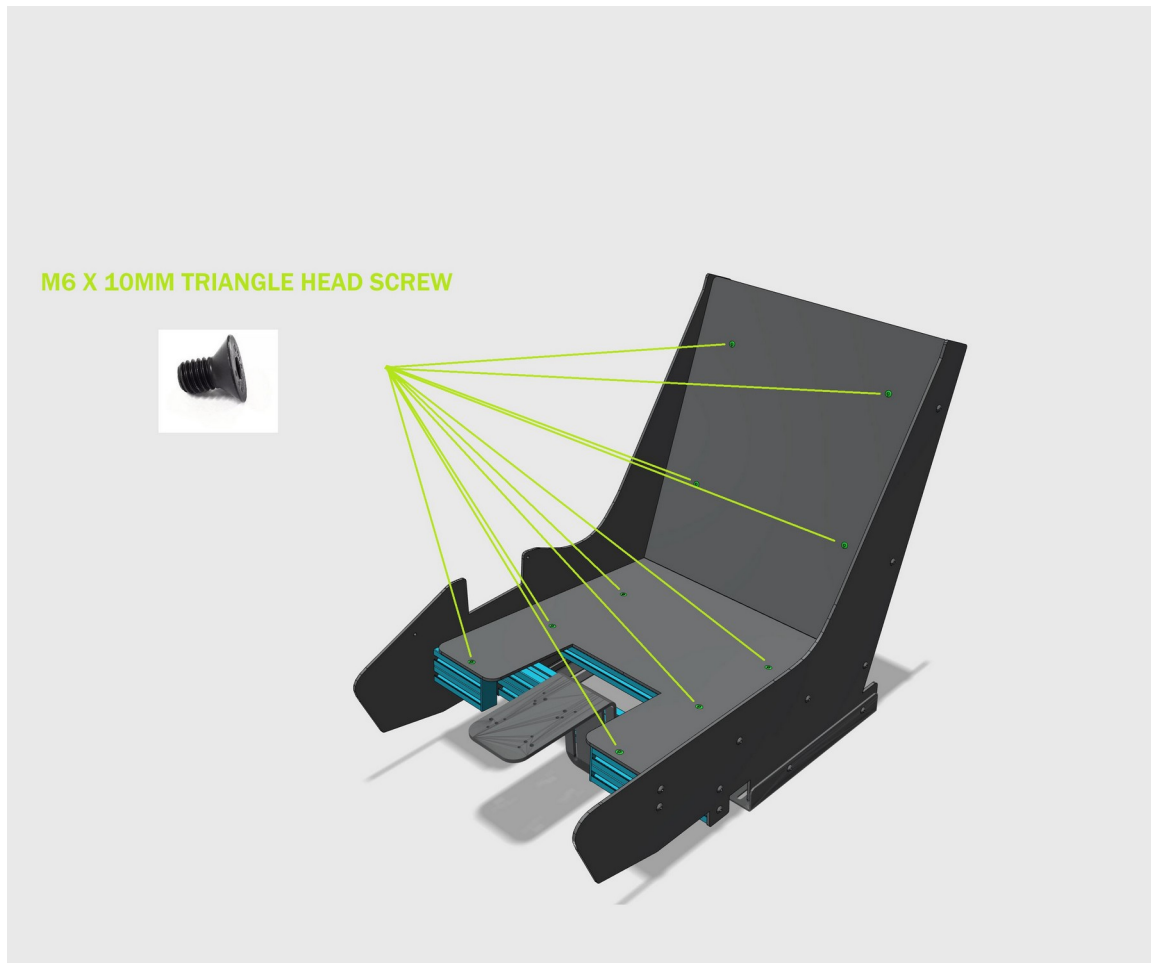


Seat side plates aligned with the base profiles and sliding T-nuts.

Step 03 / Join the base and backrest

7. Bring the backrest assembly into position with a second person supporting its weight.
8. Align the designated mounting points and start every fastener before tightening.
9. Confirm the backrest is centered and stable, then tighten the connections progressively.

Stop and verify. Do not sit in the assembly until the backrest, base, and all structural fasteners have passed the final inspection.



Backrest and seat-base connection points.

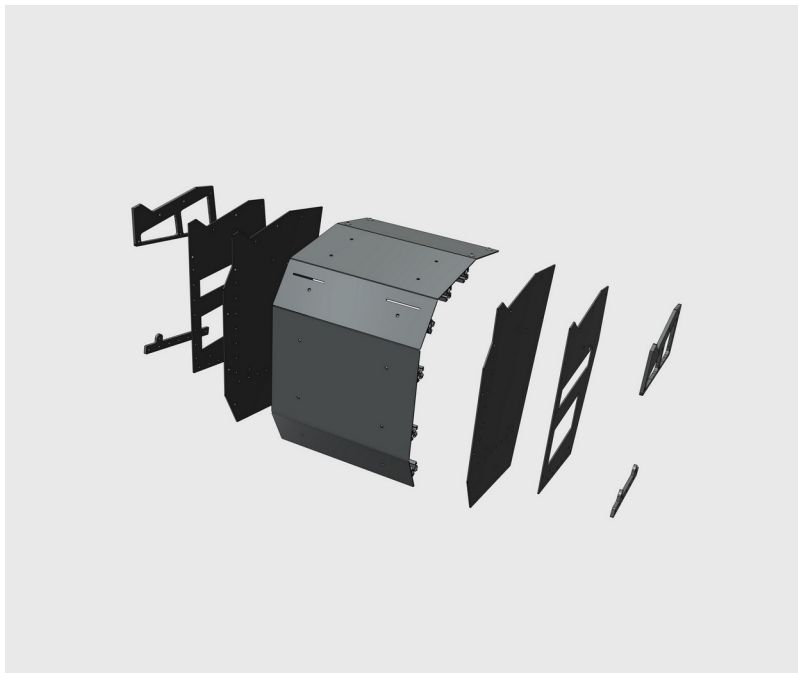
Step 04 / Assemble the parachute-box frame

10. Lay out the parachute-box frame, covers, 2020 profiles, and fasteners.
11. Confirm the required sliding T-nuts are already inside each profile.
12. Assemble the frame and side panels in the illustrated order, keeping the box square.

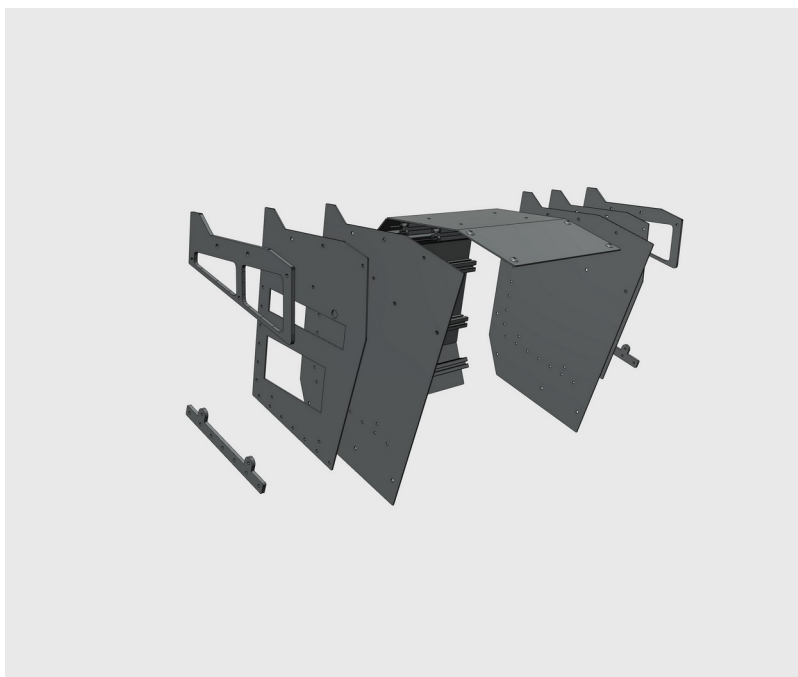
Field note. Keep all panel edges flush before the fasteners are fully tightened.



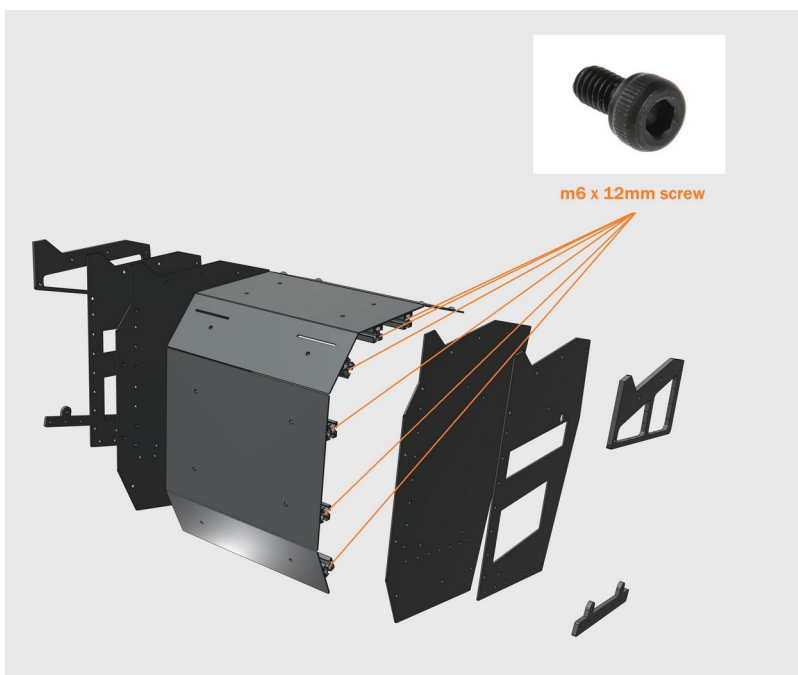
Required profile and fastener positions inside the parachute-box assembly.



Parachute-box exploded view: frame, curved cover, side panels, and rear panels.



Initial frame and cover relationship.



Rear-panel order and M8 x 12 mm fastener locations.



Rear panel and profile connection detail.

Step 05 / Install the extension profiles

13. Insert the linear 3030 connectors into the mating profiles.
14. Join the 40120 extension profiles and align their faces.
15. Tighten the connector hardware only after the two extensions are parallel.



Linear 3030 connectors installed in the extension profiles.



Extension profiles aligned before final tightening.

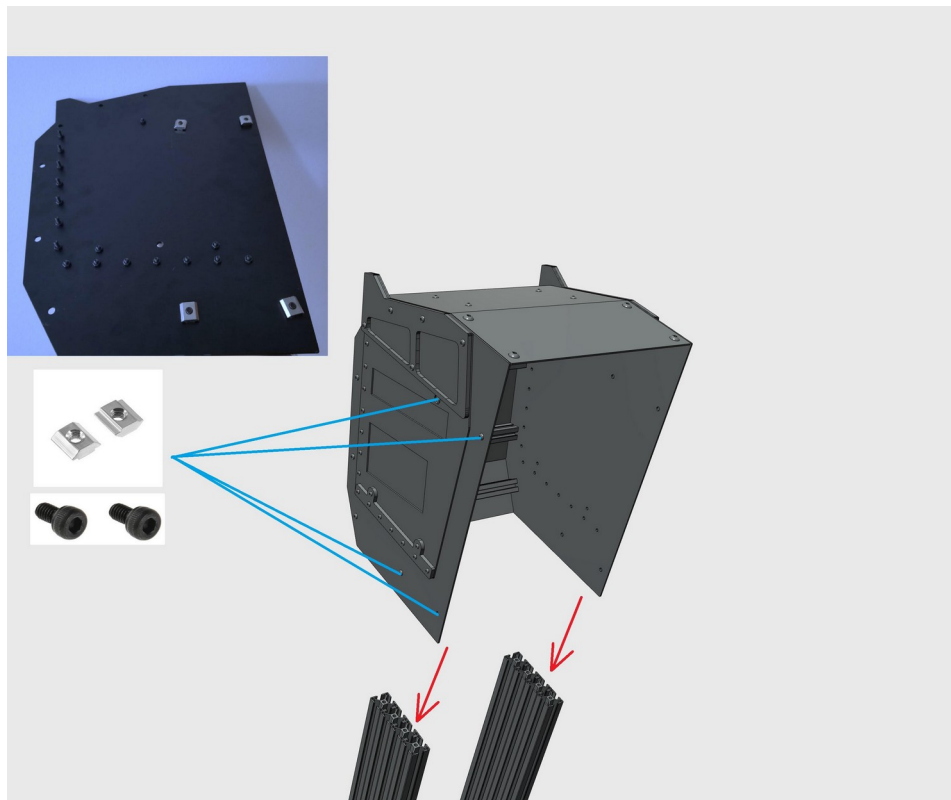
Step 06 / Connect the parachute box to the seat

16. Position the completed parachute box behind the seat base.
17. Install four L-bracket connectors at the locations shown.
18. Start all bracket fasteners, center the box, and tighten the four connections evenly.

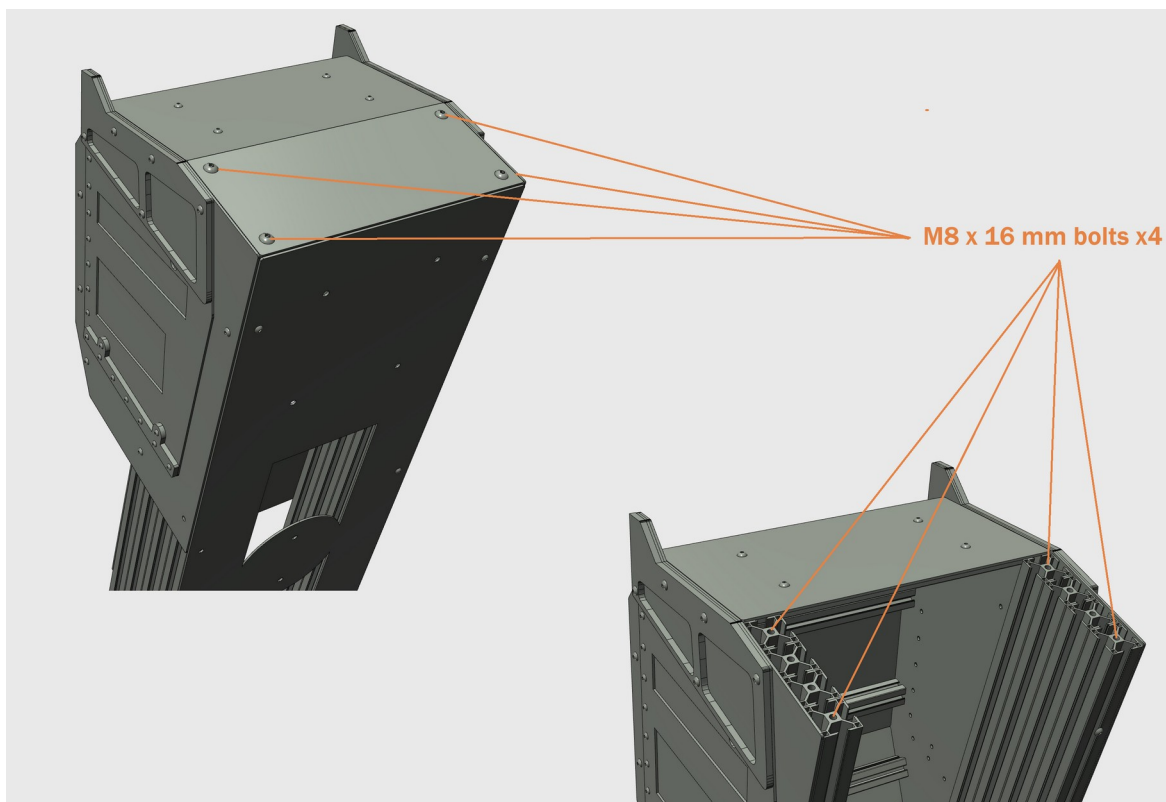
Stop and verify. Support the parachute box until all four brackets are installed.



L-bracket connection at the lower rear seat structure.



Parachute-box connection overview and bracket hardware.

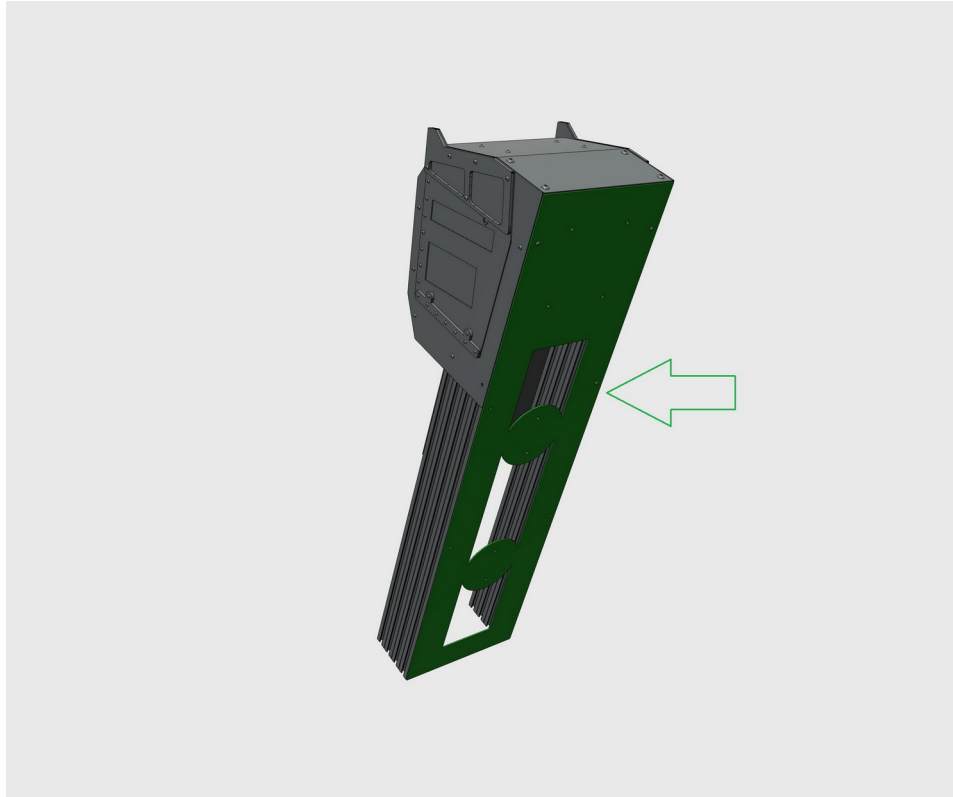


Four M8 x 16 mm fasteners secure the rear cover.

Step 07 / Install the rear cover

19. Place the rear cover over the completed parachute-box structure.
20. Align the mounting holes without forcing the panel.
21. Install the specified fasteners and tighten only until the cover is secure and evenly seated.

Field note. Decorative labels and upholstery may be installed after the structural inspection.



Rear-cover orientation before installation.



Reference view of the completed rear seat assembly.

Final inspection

Do not skip this check. Complete the inspection before installing electronics, applying body weight, or moving the assembly.

- All seat-base profiles are square and every side-panel fastener is present.
- The four reserved rear T-nuts and all later trapped T-nuts were used as intended.
- The backrest is centered, rigid, and fully connected to the base.
- The parachute-box frame is square and its covers sit flat without forced alignment.
- All four L brackets connect the parachute box to the seat base.
- The rear cover is secure and no fastener head is protruding into a contact area.
- The completed seat is stable on the floor or its approved chassis mounting points before use.

Troubleshooting

Condition	Recommended action
Side plates will not align	Loosen both sides, verify the profiles are parallel, and confirm the sliding T-nuts are centered behind the holes.
A trapped T-nut is missing	Partially disassemble the nearest profile end and install the correct T-nut. Do not drill an alternate hole without written guidance.
Parachute box is twisted	Loosen the frame fasteners, square the box on a flat surface, then retighten in an alternating pattern.
Rear cover holes do not match	Confirm the cover orientation and box squareness. Do not enlarge holes to compensate for a misaligned frame.

Need help?

Send your order number, the step number, one wide photo of the complete assembly, and close-up photos of the part or fastener in question through the Flight Desk.

Flight Desk: dogfightdynamics.com/pages/contact