

SERVICE BULLETIN

SB-050223-A

- a. Remove the engine cowling (see Aircraft [Maintenance Manual section 100497](#)).
- b. Inspect the area around the IPS interface for any damage or wear. If any anomalies are detected, stop and report to ICON Aircraft.
- c. Inspect the parachute egress area for any cracks or displacement of the bond between the fuselage and the IPS egress panel.
- d. Beginning at the inboard aft corner, use a plastic scraper to cut into, and pry apart, the bond between the IPS Egress Panel and the fuselage of the aircraft.
- e. Remove the IPS Egress Panel.
- f. Scrape remaining adhesive from IPS Egress Panel and fuselage skin. Remove any remaining FOD.

WARNING: Handle the BRS Recovery System with extreme care. Injury and property damage may occur if BRS Recovery System is fired accidentally. Install the detent pin with “REMOVE BEFORE FLIGHT” flag into the activation handle before further inspection.

2. Remove Retaining Straps from Click Bond Strap Fastener Loops. (**Figure 1**)
 - a. Locate the Click Bond Strap Fastener Loops holding the retaining straps in place.
 - b. Undo 4x Velcro, remove the retaining straps from the Click Bond Loops.

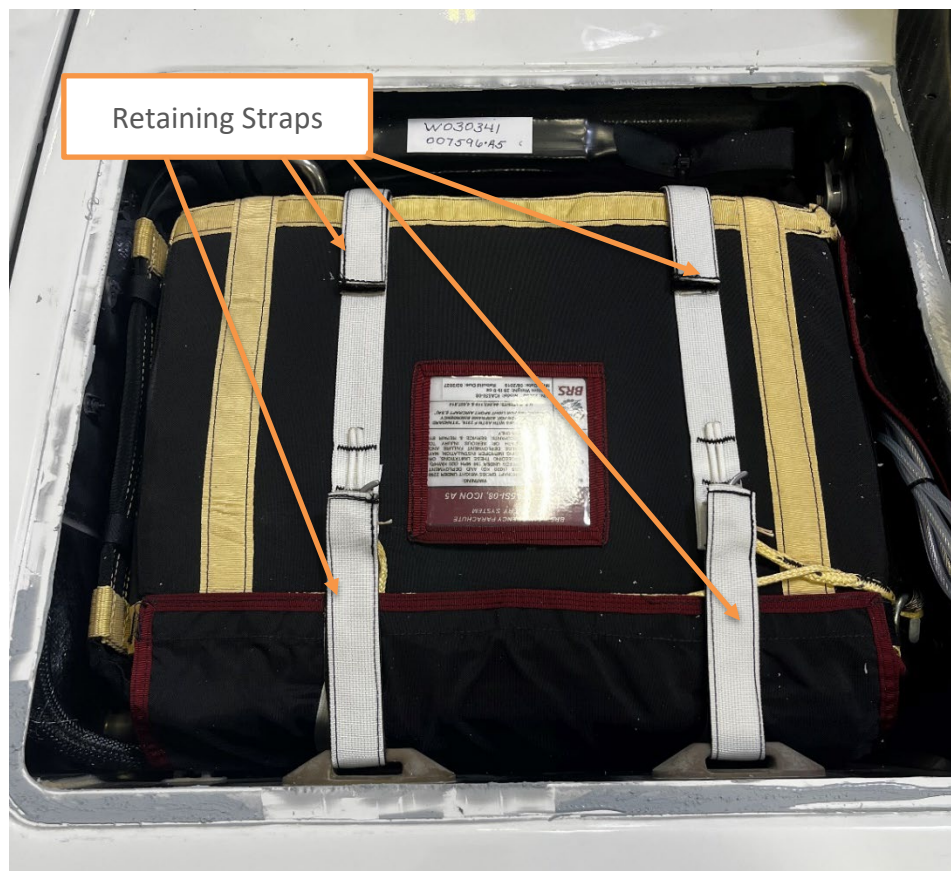


Figure 1 Parachute, with retaining straps installed, inside egress chamber.

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Figure 2 Parachute with retaining strap Velcro undone.

3. Remove the Wire Lanyard from Side Flap on Parachute Container by peeling the Velcro open on the Side Flap. **(Figure 3)**

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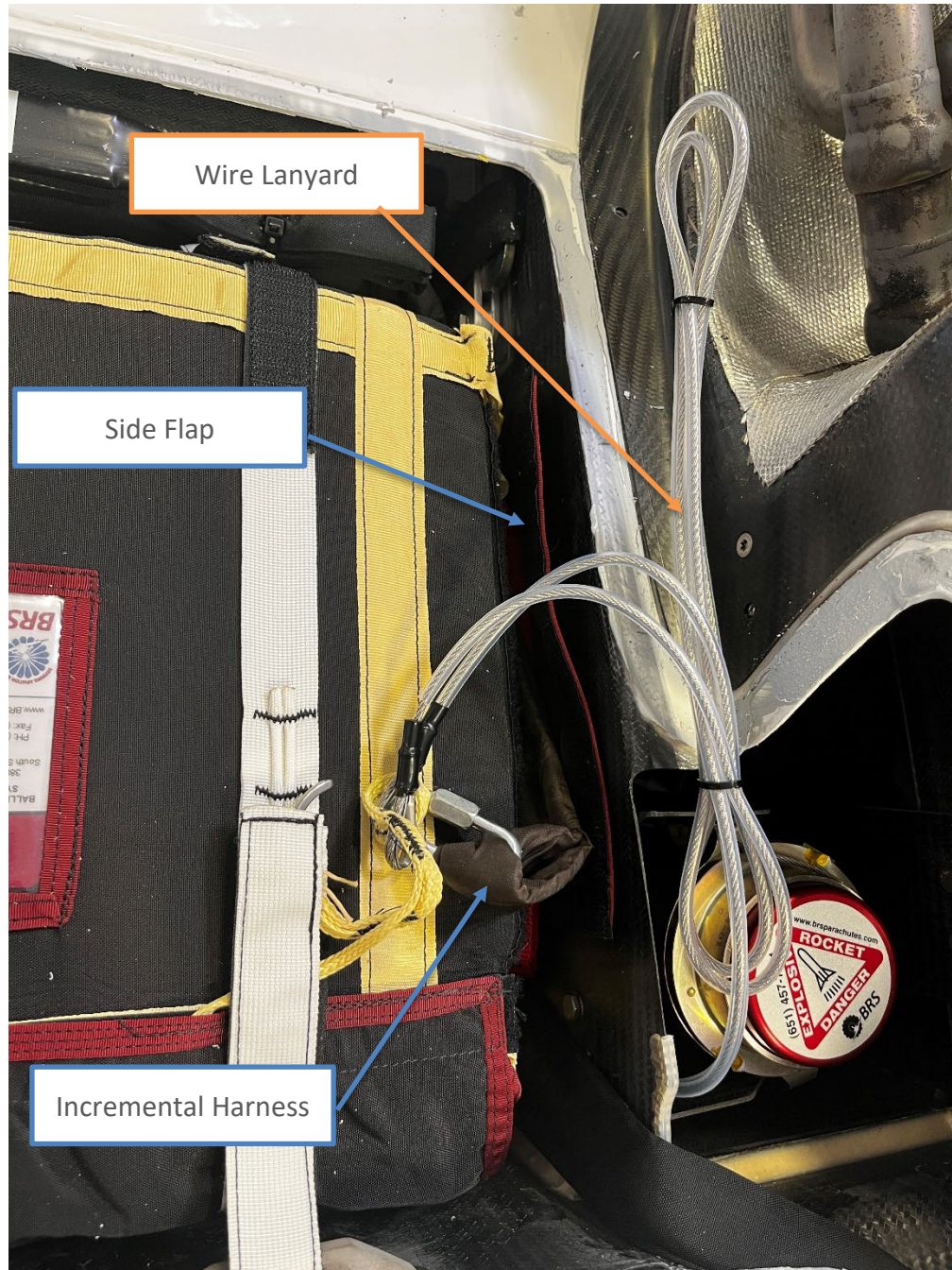


Figure 3 Wire Lanyard and Side Pocket.

4. Move Parachute to gain access to Wing Fold Tube. **(Figure 4)**
 - a. Carefully lift the front of the parachute up.
 - b. Place the parachute on its side in the egress chamber.
 - i. **CAUTION:** Do not place the parachute on the carbon L-bracket. Do not bump the switches with the parachute.

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- c. DO NOT remove any other components to gain more slack. Do not completely remove the parachute from the egress chamber.
- d. NOTE: Ensure parachute is protected from damage by covering with a black trash bag if aircraft is left unattended.



Figure 4 Lifted parachute.

- 5. Visually inspect the parachute package and harnesses. Do not remove the parachute from its container or release the harnesses from their folded bundles.
 - a. **WARNING:** If any water damage is found, stop and contact ICON. Do not fly aircraft until further direction is provided by ICON.

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6. Disconnect Deutsch Connector (D9005P/D9005J) in Wing Fold Tube and de-pin the D9005P Connector.
 - a. Note and label the connector positions that each wire was removed from for re-installation.

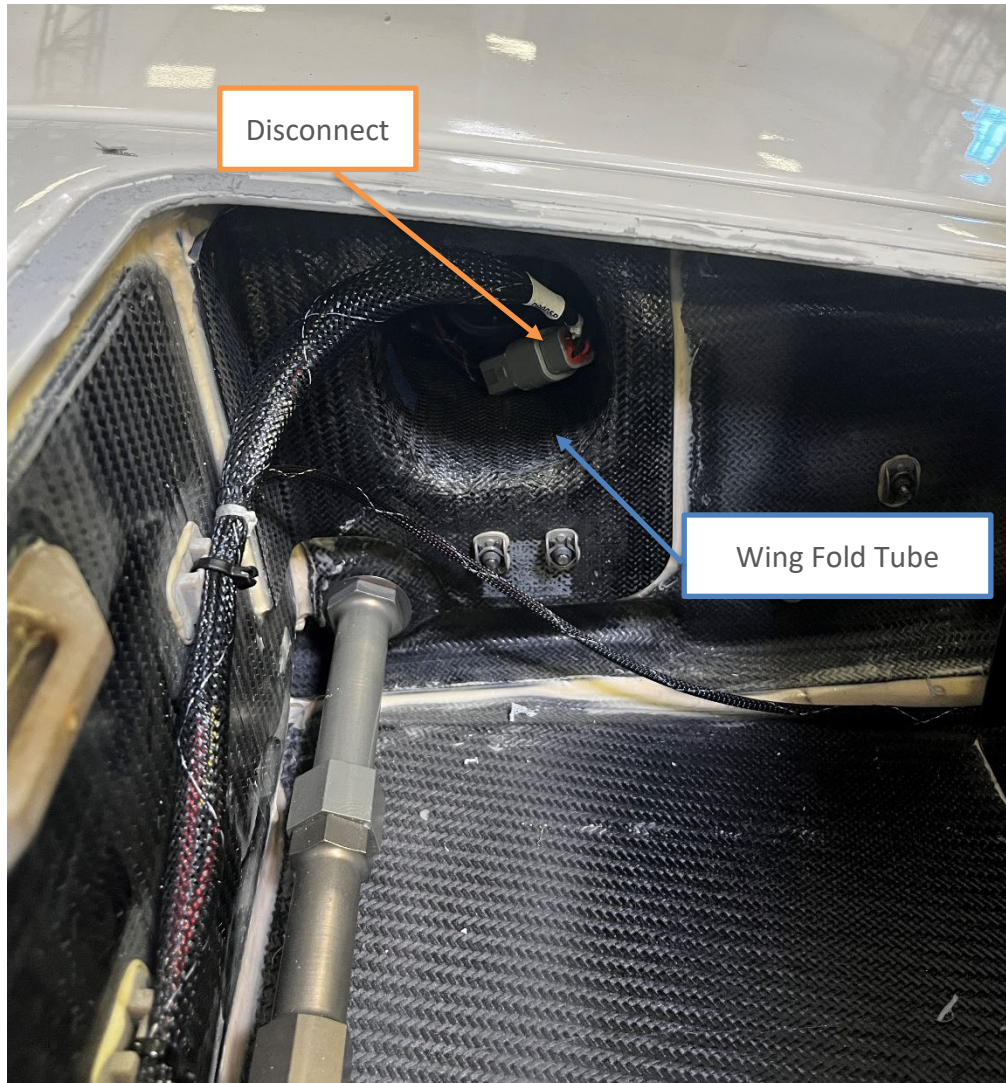


Figure 5 Exposed wing fold tube.

7. Clean bond area of wing fold tube surface with Mineral Spirits.
 - a. See the area between two red outlined areas in **Figure 6**.
 - b. **WARNING:** When using mineral spirits, ensure work area is well ventilated and located near an emergency eye wash station. Wear the following PPE: Safety glasses with side shields or chemical goggles; Chemical resistant gloves (nitrile or equivalent)
 - c. Ensure surface is dry before bonding.
8. Clean Prep Laminate Side (shiny side) of Wing Fold Tube Cover (ICA015720) with a dry cloth.

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- a. See **Figure 7**.

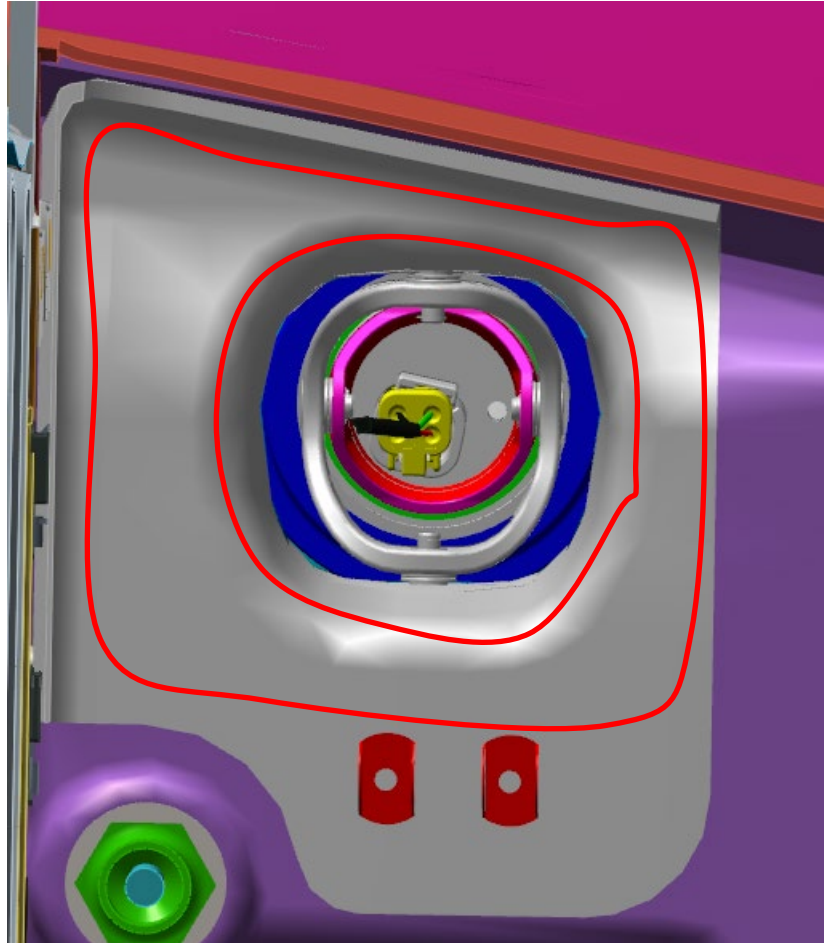


Figure 6 Bond prep area of wing fold tube.

9. Apply a continuous bead of 3M FIRE BARRIER 2000PLUS approximately .4" inboard of perimeter on laminate side of Wing Fold Tube Cover (ICA015720).
10. Overlap start and stop point of bead by approximately .25"-.5".
 - a. See **Figure 7**.

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Figure 7 Wing fold tube cover with 3M Fire Barrier applied.

11. Apply Fabric Patch with Laminate Side Facing Wing Fold Tube Cover.
 - a. Use the nut plates on the lower part of the Wing Fold Tube and aft geometry of the Wing Fold Tube for alignment. (See **Figure 8**.)
 - b. Press perimeter of the Wing Fold Tube Cover with your fingers to spread the sealant.

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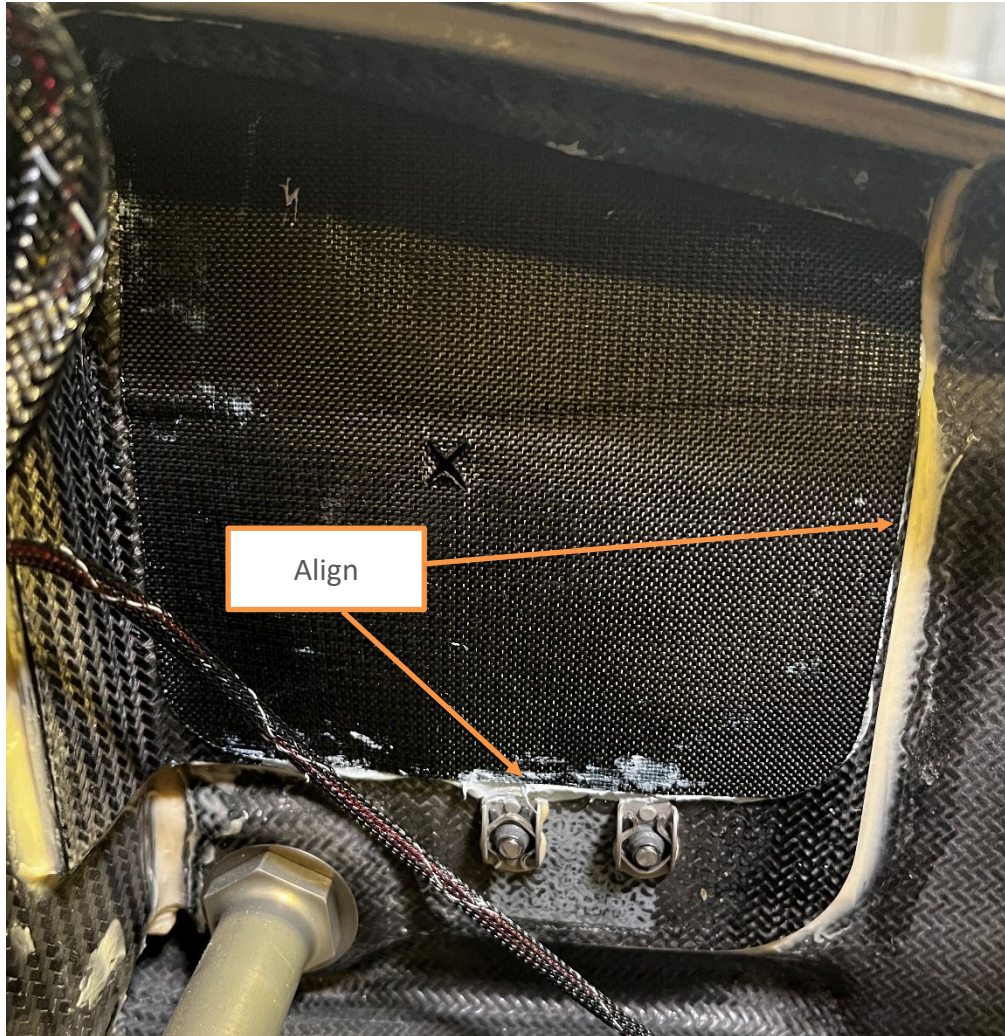


Figure 8 Installed Wing Fold Tube Cover

12. Place parachute back in egress chamber.
13. Cover parachute with a black trash bag or replace Egress Panel temporarily.
14. Allow Fire Barrier sealant to cure for approximately 24 hours.
15. Remove Parachute again and tilt up on Side.
 - a. See **Figure 4**.
16. Pass wire bundle de-pinned earlier through "X" cut in Wing Fold Tube Cover.

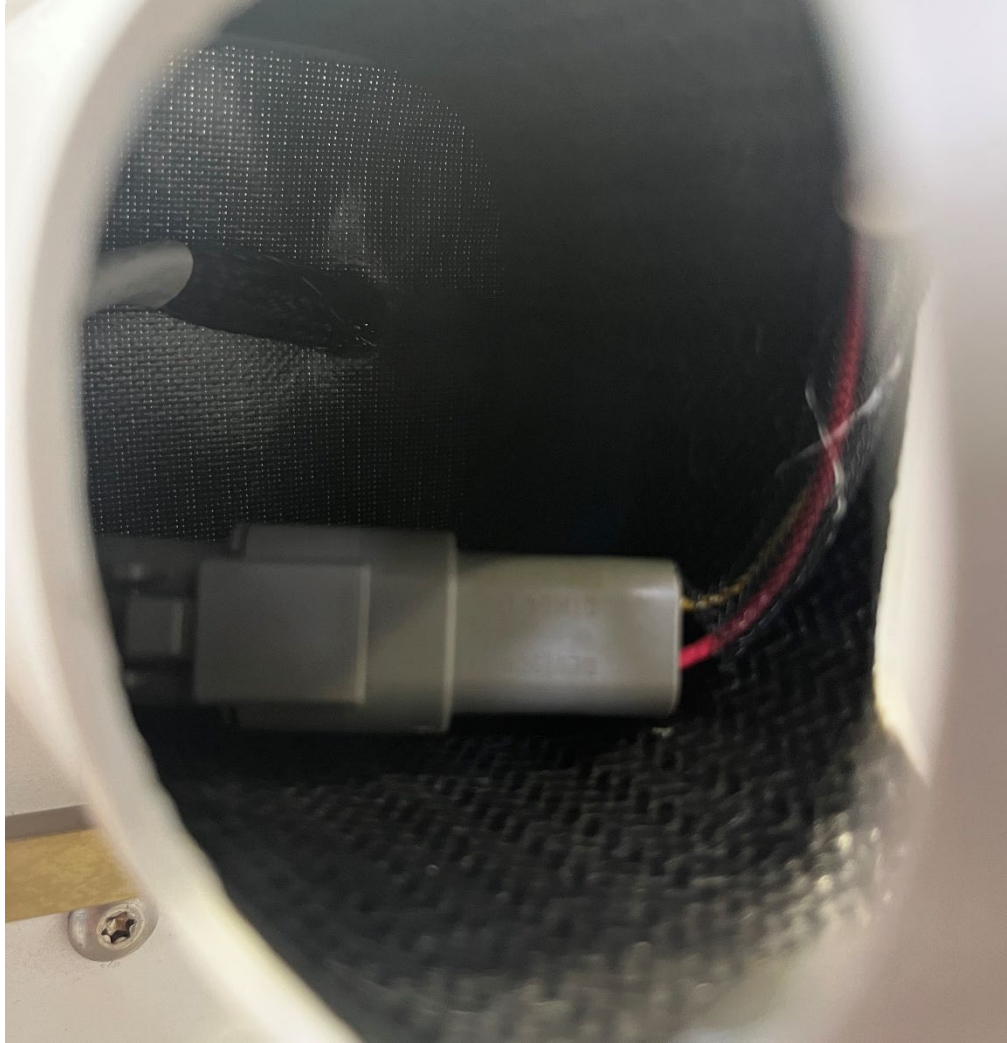
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Figure 9 Wire bundle passed through Wing Fold Tube Cover

17. Re-pin connector D9005P and reconnect to mating connector D9005J.
18. Reinstall parachute into egress chamber.
 - a. Stow wire lanyard in deployment bag side pocket.
 - i. Ensure wire lanyard does not cross over, or lie in a manner where it could become entangled in, the incremental harness also stowed in the side pocket.
 - b. Massage Velcro on side pocket closed to ensure secure stowage.
 - c. Secure parachute in egress chamber using the 4x retaining straps installed through the Click Bond Strap Fastener Loops. Massage Velcro on retaining straps closed. **(Figure 1)**
 - i. Capture pictures of the installation with the parachute properly attached to the Click Bond Strap Fastener Loops and proper stowage of the incremental harness. Submit these photographs to support@iconaircraft.com.

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- d. NOTE: The packed parachute is sent from the BRS facilities with pin tether and/or curved release pins installed secure in a grommet and loop. If release pin tether and/or curved release pins have been removed during installation, they will need to be reinstalled and secured.
- Secure pins with “2 and 1 knot” using Type 2 Glazed, 4 ply thread. The “2 and 1 knot” is a “surgeons knot” with two additional “overhand knots” in opposing directions, for added security. (See **Figure 10**)
 - Perform the “surgeons knot”, pull taut, then make an “overhand knot” in the opposite direction, pull taut; then make a second “overhand knot” in the opposite direction to the first “overhand knot”. Pull taut.



Figure 10. Curved Release Pin with Tether (Left), Secured with 2 and 1 knot (right)

19. Re-bond egress panel:

- Mask the perimeter of IPS egress panel with masking tape and popsicle sticks. The Popsicle sticks will be used as layout guides in a future step. Prep all faying bond surface areas on the aircraft AND on the IPS egress panel (highlighted in yellow)
- Scuff with 180 grit sandpaper. The abrasion should only remove surface gloss and not cut into the laminate in any way. Wipe clean with mineral spirits and wipe dry with a clean cloth.
- WARNING:** When using mineral spirits, ensure work area is well ventilated and located near an emergency eye wash station. Wear the following PPE: Safety glasses with side shields or chemical goggles; Chemical resistant gloves (nitrile or equivalent)
- Ensure surface is dry before bonding.
- Apply a continuous bead of FIRE BARRIER 2000PLUS sealant to bond area. The sealant should not squeeze out into the bond gap area. Ensure adhesive does not contact the parachute or rocket components.

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- f. Install IPS Egress Panel ensuring an equal bond gap along the perimeter of the Panel. Secure popsicle sticks to the Aircraft using masking tape. Secure weight bags using masking tape as shown.
- g. Allow adhesive to cure for 24 hours.
- h. After initial panel bonding is cured, remove all masking tape and popsicle sticks from panel and aircraft. Backfill with additional adhesive as needed and allow to cure.
- i. Clean area with isopropyl alcohol.

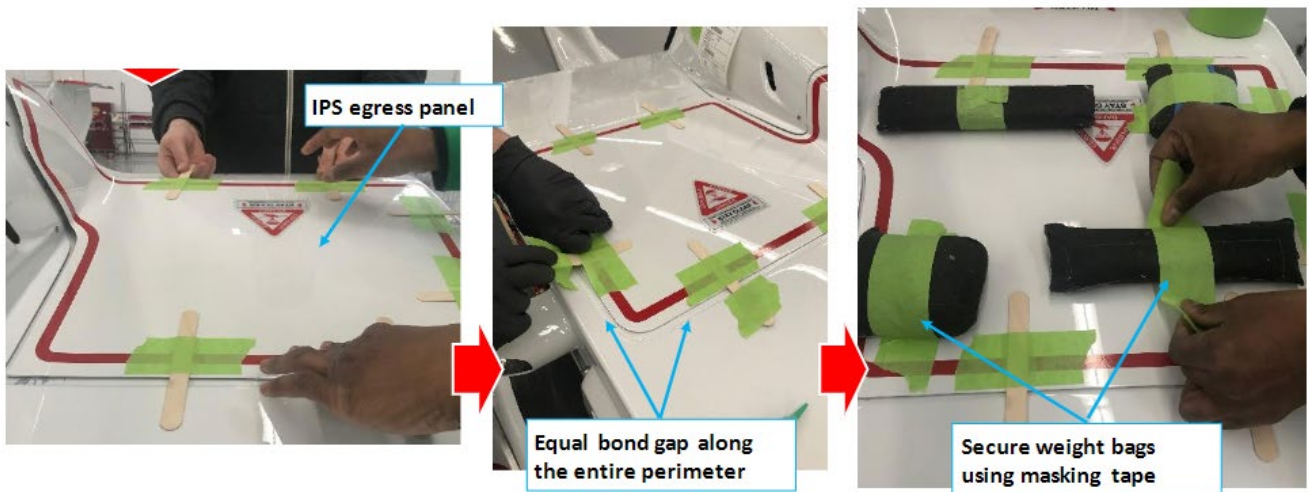


Figure 11. Bond Egress Panel

20. It is permissible to reassemble the aircraft, as required pursuant to maintenance and repair, in accordance with the latest release of the ICON Aircraft Maintenance Manual, ICA000833.

LOGBOOK ENTRY:

“The corrective action of Service Bulletin (SB-050223-A, Install Wing Fold Tube Cover) has been complied with (ref. FAA Exemption 10829C)”.

OR, for 650 Edition Aircraft:

“The corrective action of Service Bulletin (SB-050223-A, Install Wing Fold Tube Cover) has been complied with.”

If you have questions, comments, or concerns about this Service Bulletin and/or if you are no longer owner/operator of this aircraft, please forward this information to the present owner/operator and notify ICON Aircraft at:

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support@iconaircraft.com

Please include the aircraft registration number, serial number, your name, and if known the contact information of the new owner/operator.