

- (g) Fit the insert patch into the hole and attach it to the overlay patch with base sheet rivets with the rivet heads on the underside of the insert patch and a minimum edge distance of 0.6 inch (15 mm) and a maximum rivet spacing of 1.2 inch (30 mm). Use a #11 (0.191 inch, 4.9 mm) diameter drill and a 100 degree countersink bore.

F. Loose or Missing Rivets (Base Assembly)

Replace all loose or missing rivets. Replace rivets as follows.

- (1) Remove loose base rivets with a #11 (0.191 inch, 4.9 mm) drill.
- (2) Replace rivets with a 16 oz. ball-peen hammer and a Thompson Head Rivet Set Cup or similar equipment.

7. Container Body.

A. Panel Patch (P/N 6000035) (Minor Damage) – Cosmetic Repair (non-structural repair)

**NOTE:** Punctures in a panel qualifying as minor damage may be covered with a self-adhesive patch. For small holes, apply patch to outside surface of container only. For large holes, apply patches to both interior and exterior surfaces to prevent exposure of patch adhesive to the interior of the container. Extend patches a minimum of 1.5 inches beyond the hole in all directions.

Holes that do not exceed major damage limits are considered cosmetic and may be patched at point of use, at the convenience of the operator. Cosmetic patches are non-TSO repairs and consequently do not require Part 145 repair actions.

Patching of Minor Damage may be performed by personnel not covered under an FAA or EASA Part 145 Certification. Patches are non-structural and do not require pulling the unit from service for application.

Cosmetic/Custom Patch - Repair Procedures

(1). Material Required:

- (a) Heat source required when ambient temperatures are below freezing (32°F or 0°C). The source can be hand held dry iron, heat gun, or similar
- (b) Alcohol (Isopropyl) applied with rag or isopropyl wipes

- (c) Warm water with mild detergent needed for excessively dirty or greasy panels
- (d) (Optional) Hard rubber, metal or plastic roller for applying pressure to the patch

(2). Preparation for Applying the Patch:

- (a) Inspect the patch area for any burrs or frayed edges and remove as necessary. Trim only protrusions that extend beyond the plane of the panel. Trimming may be accomplished with scissors, utility knife, or other trimming tool. Any deflection of panel or skin should be repositioned to its original shape before patching.
- (b) The patches can be cut to any shape as long as a minimum of 1.5 inch (3.8 cm) patch perimeter around the damaged area is maintained. Cut a minimum of a  $\frac{3}{4}$  inch (1.9 cm) radius on all corners of patch.
- (c) Prepare the area for patching by thoroughly cleaning the panel surface around the damaged site with alcohol. For extremely dirty or greasy units, wash surface with warm water and mild detergent. Dry surface thoroughly. After surface is dry, wipe with isopropyl or rubbing alcohol. The patch must be applied within 30 minutes after cleaning the surface, if not the surface should be re-prepped.

(3). Placement of the Patch:

- (a) Test fit patch over hole
- (b) Remove the backing and firmly press the patch.
- (c) If ambient temperature is near or below freezing (32°F or 0°C) a heat source is necessary to achieve proper adhesion. Heat surface until warm to the touch. Melting of the polypropylene will occur above ~150°C. Heating of the patch will enhance the bond to the panel.
- (d) Thoroughly roll or press out any bubbles from under the patch. Verify that all edges and corners are tight to the face of the panel.

(4). Returning the Container to Service:

- (a) The container will be ready to return to service immediately after installing the patch. The adhesive bond will continue to strengthen over the next 24 hours.

- (b) Patching materials are for cosmetic repairs only. ACS does not authorize use of patch material for repair of major damage.

B. Panel Delamination Repair (Minor Damage)

Skin that is detached from the core that does not exceed major damage limits is cosmetic and shall not be repaired.

C. Panel Surface Repair (Minor Damage)

Minor panel surface damage includes skin imperfections, scuffed or marred surfaces and may be repaired per the operator's guidelines. Examples of this follow:



Repair of damage examples above is at discretion of operator.