

PROCEDURE 5.090 ELEVATOR TRIM TAB INSTALLATION

In this procedure...

You will locate, fabricate and install the elevator trim tab.

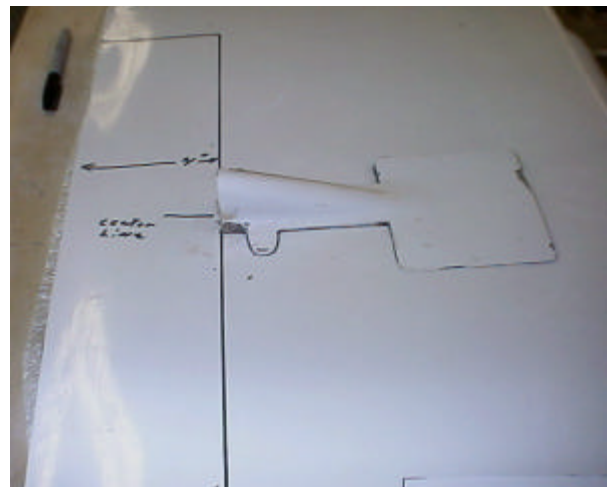
SUPPLIED MATERIAL:

<u>Part No.</u>	<u>Qty</u>	<u>Description</u>
213-11-026	1	Servo Access Panel
213-11-027	1	Electric Servo
213-11-025	2	Hinge, Trim Tab
213-11-024	1	Horn, Elevator Trim Tab
AD426-3-5	26	Rivets
MS24693C29	20	Screw
K2000-6	10	Anchor Nuts
AN365-632	20	Nuts

Step 1. Determine the location of the Elevator Trim Tab.

The elevator trim tab is located between the inboard and center rib of the left elevator. Mark the trim tab by measuring forward from the trailing edge of the elevator skin 4". Draw a line parallel with the trailing edge, extending from the outboard face of the inboard rib to the inboard face of the center rib on the left elevator bottom skin.

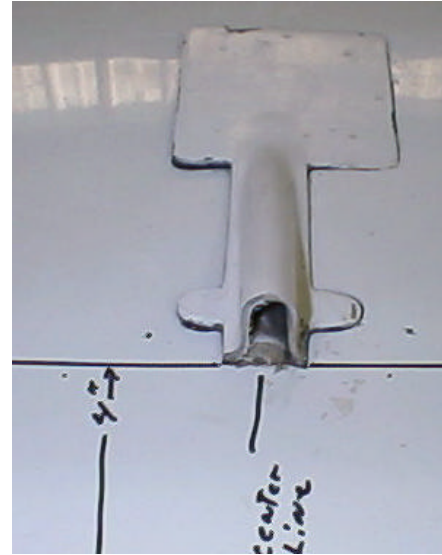
Position the upper skin on the left elevator and repeat the above procedure to determine the trim tab location on the upper skin. Carefully cut out the trim tabs panels. (**Note: These panels will be used for the trim tab so use care when cutting out.**)



Step 2. Install Cover Plate.

On the outer face of the lower aileron skin determine the center of the trim tab cutout area. Using a framing square draw a line 90° from the **Hinge Centerline** aft to the trim tab centerline. This line is the center point for the servo access panel. (Note: On kits shipped after Jan 2001, this joggle area is already installed in the aileron skin and this step is not required.) Position the servo access panel on the elevator skin centered on this line and draw a line around the servo access panel.

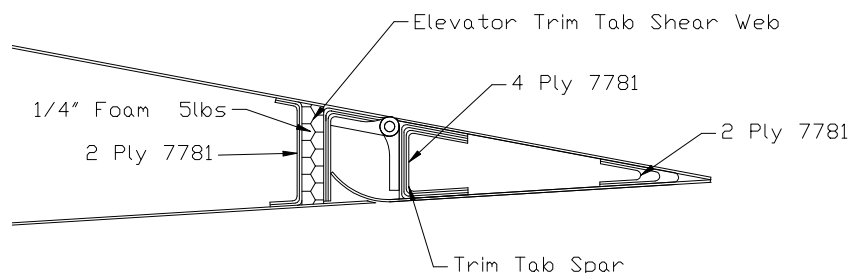
Carefully cut out the area where the servo access panel will be installed. Remove the foam core on the inner side of the elevator skin approximately 1" from the cut out area. Place tape on the inner side of the access panel to insure that resin will not bond to it, and install the access panel in the cut out area. Use tape around the edges to insure that the access panel is held in place and remains flush with the elevator skin.



Laminate 6 plies over the cut out area on the inner side of the elevator skin to form the access panel joggle. This laminate should extend onto the elevator skin at least 2". When cured remove the access panel and trim the inner area so that you have a ½ inch joggle around the left, right and front sides of the panel.

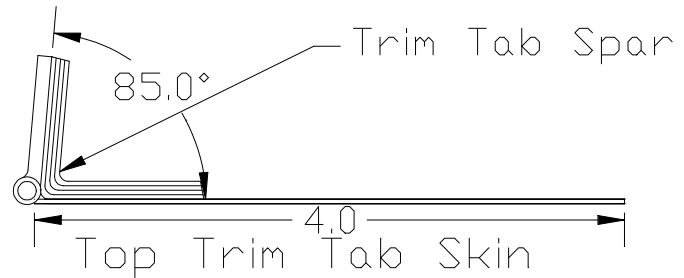
Step 3. Install Elevator Trim Tab Shear Tie.

Measure 1" forward from the trim tab out area and hot glue a ¾" wide piece of ¼" 5 lbs foam to the lower elevator skin between the inboard and center ribs. Sand this foam so that it has clearance with the upper elevator skin when installed. Laminate 2 plies of cloth on the forward side of this shear tie.



Step 4. Fabricate Trim Tab Spar.

Fabricate the Trim Tab Spar by placing the top trim tab skin (outer surface down) on a table. Use a piece of aluminum or similar material to form a backing surface. Place the strip of aluminum 1/16" aft of the forward edge of the trim tab, 85° from the trim tab skin. Laminate 4 plies of 7781 on the trim tab skin and up the aluminum strip. Allow to cure and remove the aluminum strip. Position the trim tab in the elevator cut out area and trim the spar. The Spar should have a .060 clearance between and the lower elevator skin.



Step 5. Fit Lower Trim Tab Skin.

Fit the lower trim tab skin on to trim tab assembly. Measure the distance between the center of the hinge pin and the outer surface of the trim tab. This is the demention of the radius of arc, which must be added to the forward edge of the lower trim tab skin. Use a piece of PVC Pipe or similar material to construct the curved leading edge of the trim tab. Make a 3 ply lay up of the leading edge. When cured tape this to the lower trim tab skin and attach it to the lower skin by laminating 3 additional plies on the inside of the skin.

