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Installation Guide:

Vans RV9/10/14 Wingtip Cutout Procedures

P/N 01-2500-KT-1; 01-2500-KT-2

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Installation Preparation

Before initiating the installation process, gather the following tools and supplies:

Tools/Supplies

1) Sharpie—Extra Fine Point Pen
2) (1) roll 1/2" Fine-Line Tape (or electrical tape)
3) (1) roll 1" wide 3M Blue masking tape
4) (2) 1/8" Cleco
5) Cleco Pliers
6) Dremel Tool (or die grinder)
7) 1.5"dia x .060" Cutoff Disk
8) 5/8"dia, 80 grit sanding drum
9) (1) sheet 80-150 grit sandpaper
10) Hysol Structural Adhesive –OR– milled Fiberglass and epoxy
11) 2"wide x 48"long 5oz Bi-directional fiberglass strips
12) 1" Horse-hair Paint Brush
13) *Left and Right Wingtip Inserts*

* Items included in Installation Kit

Step 1: Modify Existing Wingtip Cutouts-RV10/14

1) Place the existing wingtip on a solid surface that allows front and rear access while working. Using the wing skin offset jog as the reference point, measure outboard **3.5" (RV10/14)** OR **5" (RV9)** and mark several locations adjacent to the existing wingtip cutout. (*Note: RV10/14 wingtip shown below*)


2) Using the angled-section of the wingtip cutout offset jog as the reference point, measure aft 1.0" and mark several locations adjacent to the existing wingtip cutout and mark point on the top and bottom surface.

3) Using an 12" section of Fine-Line tape, use the marks to located the tape-line, ensuring that your tape-line is parallel with the existing wingtip cutouts--apply tape to the top and bottom surfaces of both marked lines.
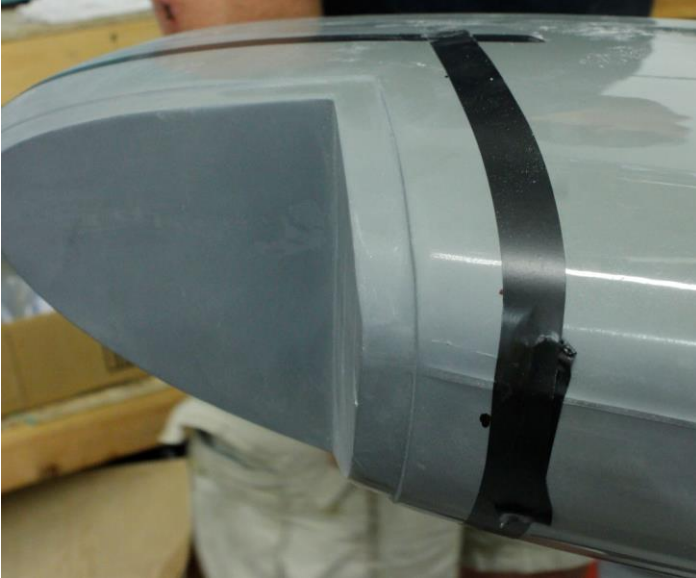
4) Once all pieces of tape are in-place and located, use a Sharpe pen to trace the inside of the tape-line (around the entire perimeter) while using the edge of the tape as a guide. Then remove the tape sections to reveal the ink-line that will be used as a guide for the cut-line.
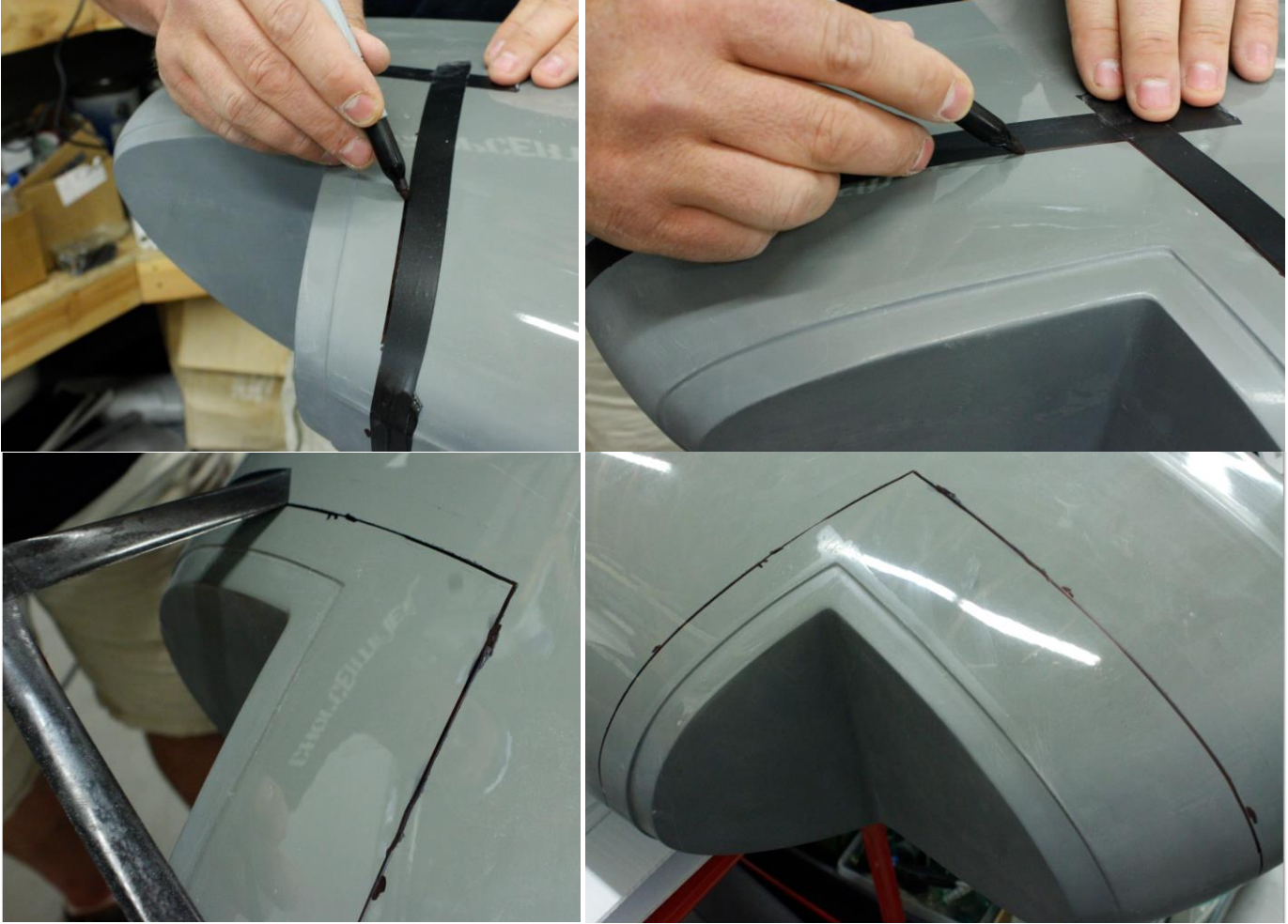
5) Using a Dremel and cutoff wheel-- cut the existing piece out of the wingtip by following the <u>outside</u> of the marked line.

Step 2: Pre-Cut Insert Cutout

1) Pre-cut the AeroSunVx opening on the new Insert by cutting approximately 1/8 below the blend-line of the feature.

Step 3: Pre-fit Insert and Wingtip Assembly

1) Using a sanding block and 80-grit sandpaper, sand the edge of the cutout to smooth and even the cut-line to prepare the new Insert to be positioned. Continue to sand the cut line until the Insert can be inserted in the cutout *(Note: The Insert is best positioned in-place by inserting it from the inside of wingtip.)*

2) Using 80 grit sandpaper, sand the inside perimeter of the wingtip and the flange of the new Insert.

Step 4: Final Fit and Bonding Assembly

1) Ensure that the leading edge and outboard edge of the Insert and wingtip are aligned and used as the primary reference point during installation. Once the final fit has been reached, use (2) 1/8" Cleco's to position the Insert to the wingtip.
2) Using structural; adhesive (or epoxy and micro-fiber), glue the Insert to the wingtip by applying material around the entire offset flange of the Insert.
3) Tape-glass Insert to wingtip by applying 2 strips of 5oz bi-directional strips to the inside of the wingtip between the Insert flange and inner skin.
4) Blend and fill the intersection of the Insert and wingtip as needed.
5) Install the AeroSunVx light assembly as indicated by document ("*AeroSun Vx Wingtip Installation Procedures; Doc# 0002-0005*)

Revision Table

Revision Number	Effective Date	Inserted By	Page Numbers Revised
IR	07/04/2014	Nate Calvin	All
A	01/26/15	Nate Calvin	3-5