

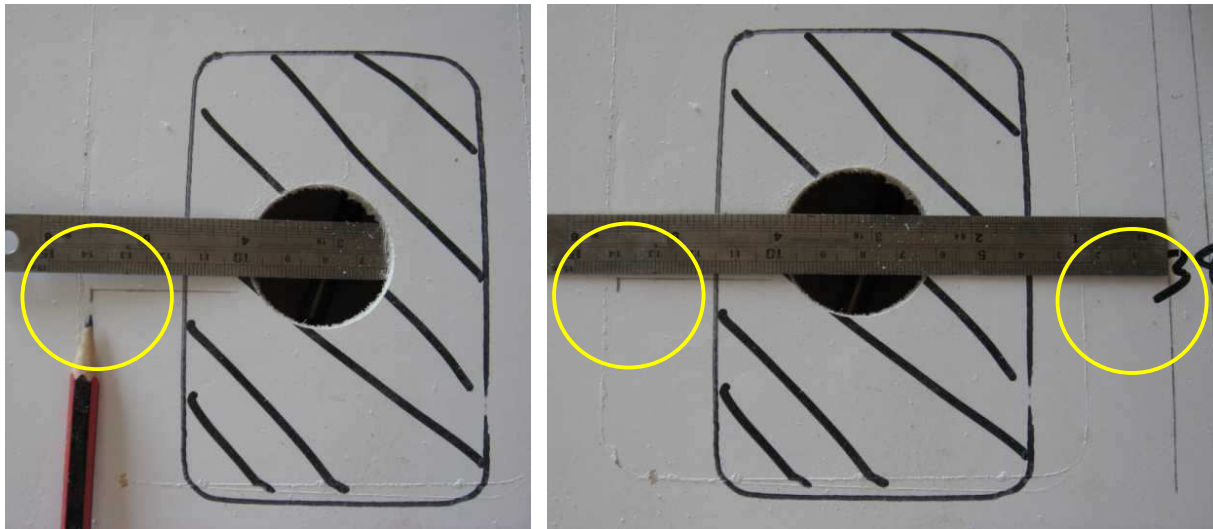
Pre-Paint>Wings>Cut aileron cable openings

Objectives of this task:

Check the position of the wing rib near the aileron cable inspection openings and then check, mark and cut the aileron cable openings.

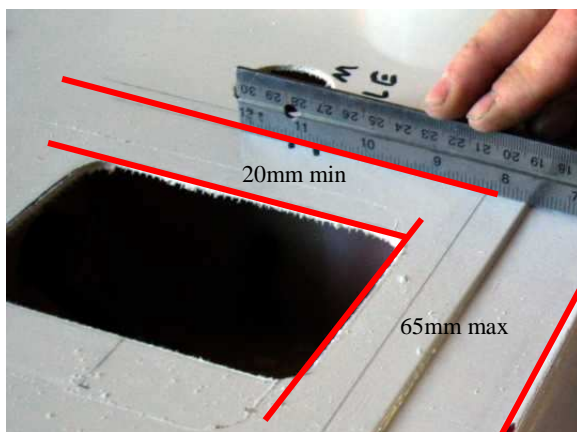
Check and cut the aileron cable inspection opening

Turn the wing upside down and pack under the trailing edge so that the wing is stable.



Start by drilling a 38mm hole in the centre of the shaded rectangular area, and then place a ruler into the hole towards the wing root until it touches the rib. Mark a reference line on the wing (140mm has been used as the reference circled in the photos above).

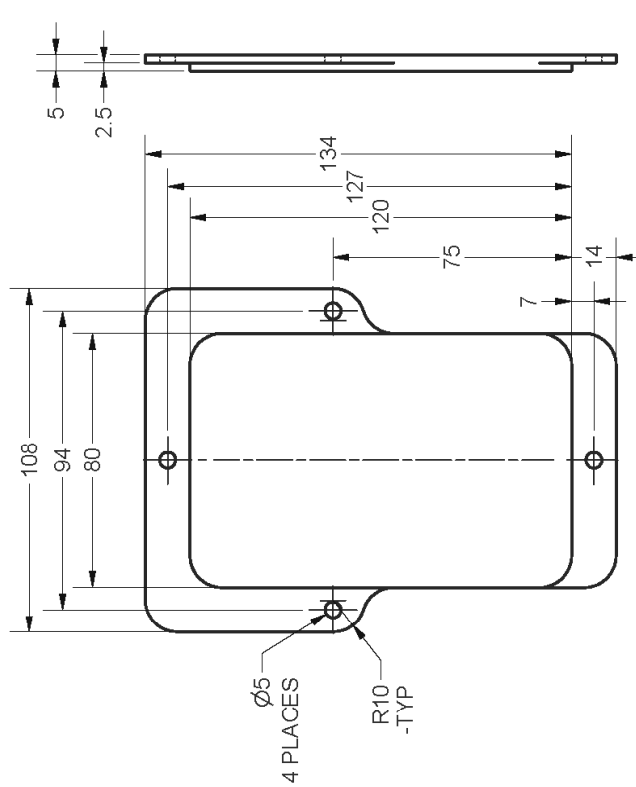
Now remove the ruler from the hole and lay it on the wing with the reference mark lined up and mark where the end of the ruler lies, which is where the outboard side of the rib is located, and draw a line fore and aft at that point. Measure 12mm from that line towards the wing root and draw another line: this marks both sides of the wing rib.



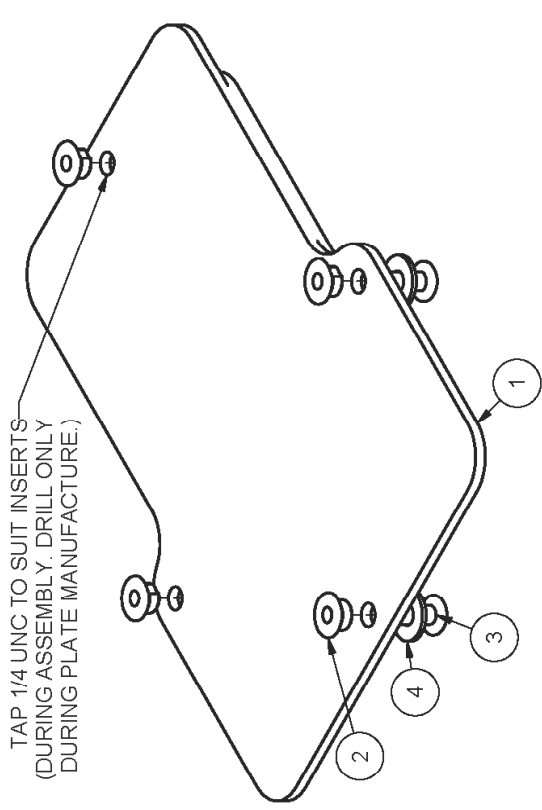
The position of the inspection hole should be no closer than 20mm from the outboard side of the rib and no more than 65mm from the trailing edge of the wing. If it is not then you will need to move the markings accordingly.

Use a jigsaw to cut the rectangular inspection hole slightly undersize and then carefully widen to 80mm wide and 120mm front to back with rounded corners to fit the clear cover (drawing on next page). Set the clear cover aside until after painting.

Parts List			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	2A054A1D-2	INSPECTION PLATE SER III WING	1
2	5A048A1D-3	FAIRING SCREW SOCKET 4mm	4
3	8-32	BUTTON HEAD SCREW	4
4	5-32_WASHER	PLAIN (GAL) WASHER	4



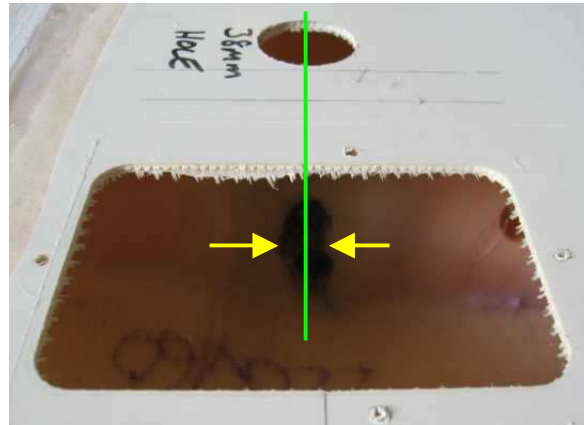
TAP 1/4 UNC TO SUIT INSERTS
(DURING ASSEMBLY. DRILL ONLY
DURING PLATE MANUFACTURE.)



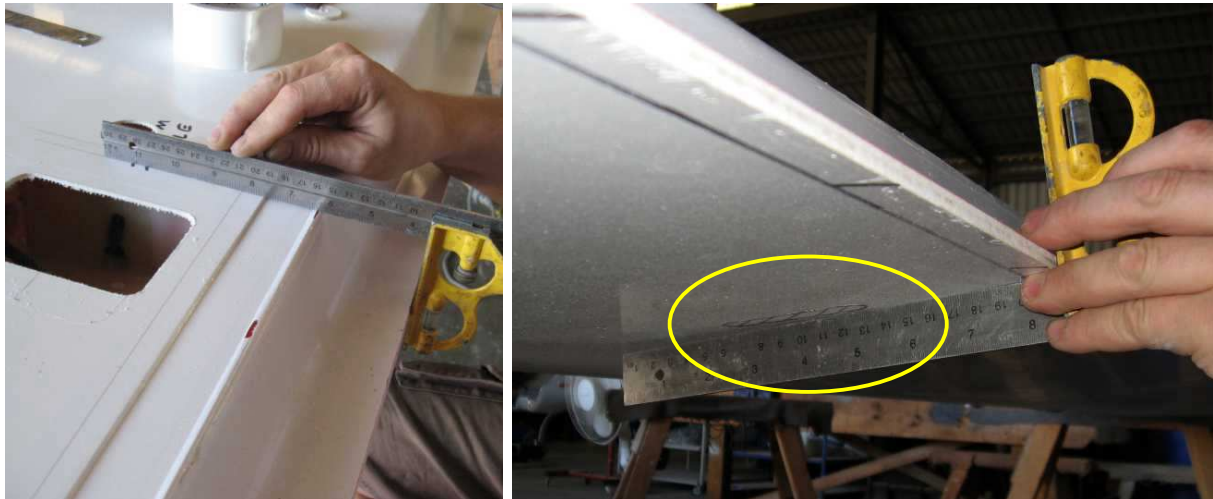
<p>PROJECTION </p> <p>GENERAL TOLERANCES WHOLE NO'S ± 0.5 ONE DEC. ± 0.25 TOW DEC. ± 0.05 ANGLES ± 0.5°</p> <p>MATERIAL 5 THICK CLEAR ACRYLIC SHEET TO PSUED-07</p>	<p>DO NOT SCALE</p> <p>DRAWN DS</p> <p>APPR.</p>	<p>AVTECH P/L</p> <p>A.C.N. 010 786 973</p> <p>HINKLER AIRPORT</p> <p>BUNDBERG 4670</p>	<p>THIS DRAWING IS COPYRIGHT AND MUST NOT BE COPIED WITHOUT THE CONSENT OF AVTECH PTY LTD</p> <p>TITLE WING INSPECTION PANEL ASSY - MACHINED</p> <p>DWG. No. 2A054A0D-2</p> <p>SCALE VAR</p> <p>ISS. DATE 18/3/08 14/2/06</p> <p>DS 2</p> <p>SHEET 1 OF 1</p>
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Now look into the hole that you have just cut – look for the black marks (arrowed at right) on the rib that shows the location of the aileron cable clamp bolt holes. Drill a second 38mm hole as shown at right, slightly inboard of the wing rib with the fore and aft alignment being exactly in line with the aileron cable clamp bolt holes. This hole will be used to access the rear of the cable clamp bolts.

This completes the underwing work, now we need to check the aileron cable slot marking on the upper wing surface.



Check and cut the aileron cable exit slot



With the wing still upside down, lay a setsquare on the wing and use it to transfer the location of the **outboard** side of the wing rib to the upper wing surface. Mark the rib location and then turn the wing right side up.

It is critical that the aileron cable slot be accurately positioned in relation to the wing rib because the aileron cable will be clamped to the wing rib and it must align with the aileron drive arm. The aileron drive arm and thus the aileron is positioned in relation to the slot in the later task *Pre-Paint>Wings>Fit ailerons*.

The marked slot should be slightly (~2mm) outboard of the wing rib. If that is not the case then move the slot marking laterally until it is slightly outside of the wing rib. The fore and aft position of the slot will be correct as marked and the overall slot dimension should be approximately 15mm wide and 70mm long.

Once the location has been confirmed then cut the slot out: drill each end of the slot slightly undersize and use a jigsaw to join the holes then widen to the marked size with a file.

If the aileron cable inspection hole on the underside of the wing has been correctly marked then the aileron cable slot will usually be correct too, but it is still good practise to check carefully before cutting – it is much better to check first and *then* cut.

This completes the *Pre-Paint>Wings>Cut aileron cable openings* task.