

SANDEL®

COMPONENT MAINTENANCE MANUAL FOR SANDEL SA4550 Primary Attitude Display

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PROPRIETARY DATA

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REVISION SHEET

REV	Date	Pages	Para.	DESCRIPTION OF CHANGES
B	Feb. 11, 2010	3-6	4.	A/R 1108; Added procedure for changing window
A	Aug 22, 2007	All	All	A/R 925; Initial Release

1. APPLICABILITY

This document is applicable to maintenance for continued airworthiness of the Sandel SA4550 Primary Attitude display:

Unit part number: SA4550-xxx, Software revision 1.01 or later

2. UPLOADING SYSTEM SOFTWARE

System software is released via a Service Information Letter (SIL) or via a Service Bulletin (SB) posted on the Sandel website. The SIL or SB contains links to the software and the related software installation files necessary to load the software. Software updates must be performed by a Sandel authorized dealer or repair station.

The SIL's and SB's update information can be found at: www.sandel.com under "Support".

3. OTHER MAINTENANCE

There is no additional maintenance required on the SA4550 Primary Attitude Display.

4. FIELD REPAIR

Window replacement is the only authorized in-field repair allowed on the SA4550 per the following procedure. Replacement display windows, Sandel part number 61152 may be ordered from Sandel.

Tools required

Small flat blade screwdriver

#1 Phillips head screwdriver

Important! Read through entire procedure first to familiarize yourself with the part terminology and assembly sequence. Perform replacement in a clean environment.

Step 1. Remove encoder knob:

1. Carefully knob caps from encoder knob using a small, flat blade screw driver or similar.
2. Loosen encoder knob collet using a flat blade screw driver and remove encoder knobs from encoder shafts.

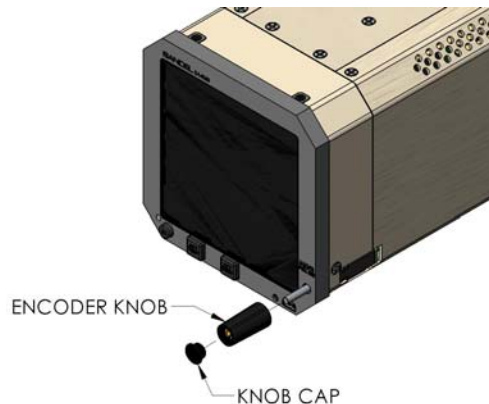


Figure 1. Encoder knob removal

Step 2. Remove bezel retaining screws

1. Place unit upright on bench.
2. Remove 4 ea flat head machine screws, 2-56 X .125 retaining bezel to actuator housing. Hold bezel in place to prevent shifting of retained components.

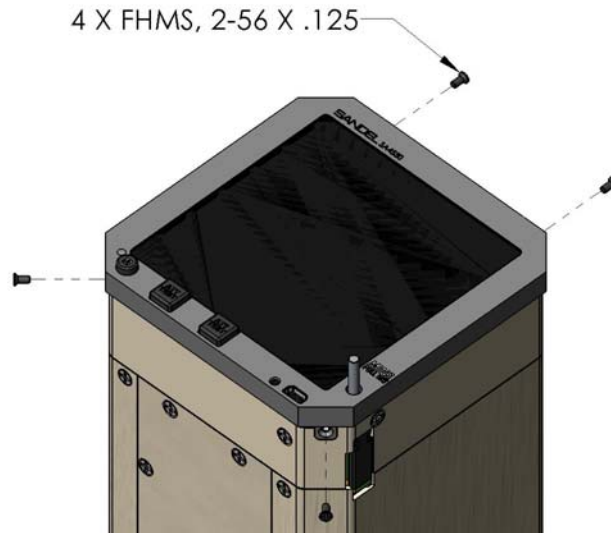


Figure 2. Remove bezel retaining screws

Step 3. Remove bezel and window:

1. Carefully lift bezel from unit while disengaging bezel buttons and rubber keypad from bezel. Do not remove or shift keypad, keypad circuit board, or Fresnel lens.
2. Remove existing window from unit.

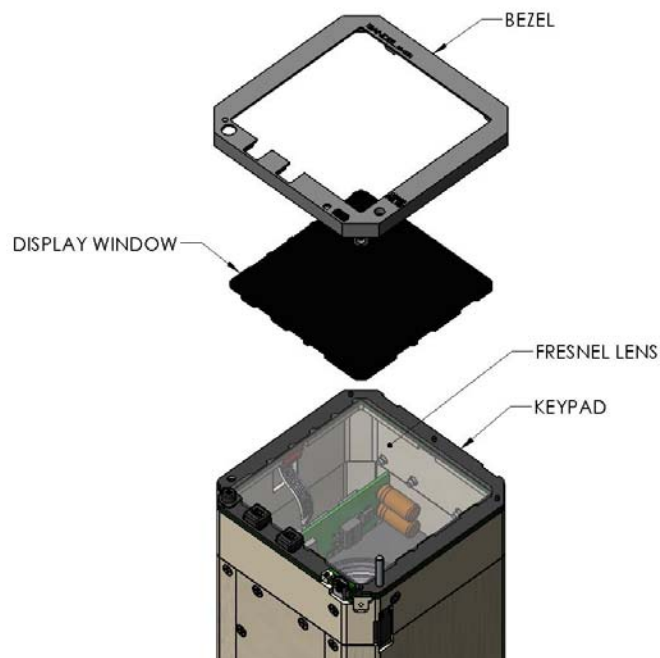


Figure 3. Window removal

Step 4. Install replacement window:

1. Align replacement window to keypad and place onto Fresnel lens of face of unit.
2. Ensure that keypad, keypad circuit board, and Fresnel lens are properly located and have not shifted during procedure.

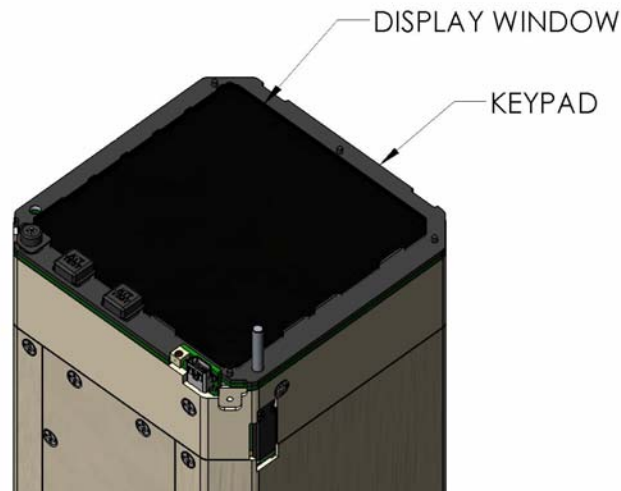


Figure 4. Reinstall window

Step 5. Reinstall bezel:

1. Carefully reinstall bezel onto unit actuator housing. Ensure that the machined lip in window engages bezel opening and that bezel fully seats.
2. Reinstall 4 ea flat head machine screws, 2-56 X .125.

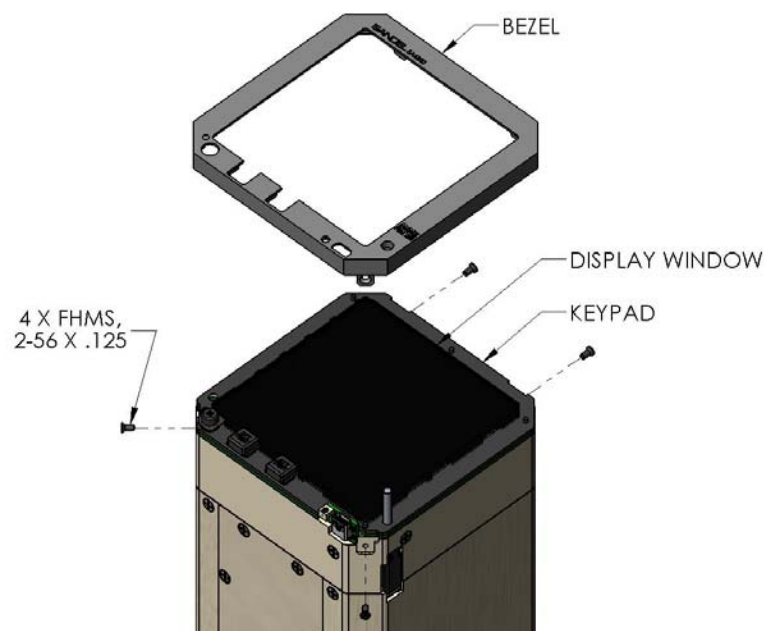


Figure 5. Reinstall Bezel

Step 6. Reinstall encoder knob:

1. Place encoder knob over encoder shaft.
2. Leave approximately 0.06" (1.5mm) gap between back of encoder knob and face of bezel.
3. Tighten encoder knob collet using flat blade screw driver. Verify knob operation by rotating knob and pushing in knob. Detent in knob push should be detectable and knob should not contact bezel. When depressed, verify gap dimension by slipping a piece of paper between the knob and the bezel (paper is approximately 0.005" [0.1mm]). The paper should fit easily.
4. Reinstall encoder knob cap into encoder knob.

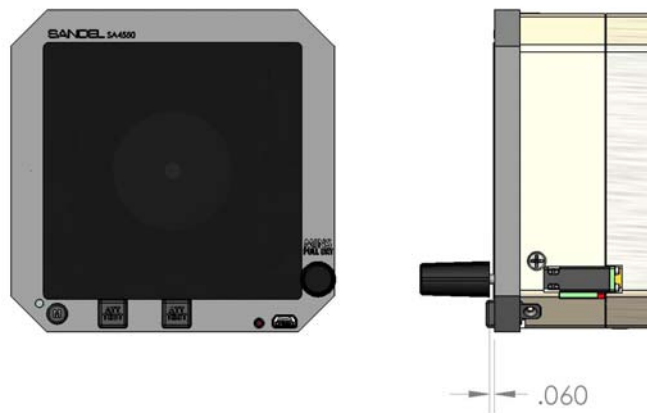


Figure 6. Reinstall Encoder Knobs

Step 7. Verify installation:

1. Ensure that all affected components are installed.
2. Ensure that bezel retaining screws are securely installed.
3. Ensure that all bezel buttons operate freely, without binding.
4. Ensure .060 gap between Encoder Knob Skirt and Bezel
5. Ensure Encoder operation.