

MANDATORY SERVICE BULLETIN**NUMBER:** SB13-08**REVISION:** 00**DATE:** November 18, 2013**SUBJECT:** VISOR BRACKET**EFFECTIVITY:**

KODIAK® 100 Series Aircraft Serial Numbers: 100-0001 through 100-0085

SUMMARY:

This Service Bulletin addresses Quest Safety Communiqué QSC-003 (included herein for reference). If not previously complied with, Quest requires the removal of crew visors from their factory installed location as previously recommended in QSC-003. If re-installation is desired, install in accordance with accompanying FSI-052 which provides guidance for relocating the crew sun visors.

COMPLIANCE:

If not previously complied with, the removal of crew visors from their factory installed location as recommended in QSC-003 must be complied with on or before the next 100 Hour Inspection or Annual Inspection, whichever comes first. Re-installation in accordance with FSI-052 is FAA compliant and may be completed at the discretion of the owner/operator.

ATTACHED DOCUMENTS:

Document #:	Document Title:
QSC-003	CREW VISOR REMOVAL
FSI-052	VISOR BRACKET RETROFIT

FAA APPROVAL STATUS:

The instructions attached to this Service Bulletin have demonstrated compliance with all applicable Federal Aviation Regulations and are approved by the Federal Aviation Administration.

CREDIT AND WARRANTY INFORMATION:

Service Kit FSI-052 is available for purchase for \$561.99 (price subject to change) through Quest Customer Service.

Quest Customer Service**Service Bulletin: SB13-08****Phone: (208)263-1111 Toll Free: 1(866)263-1112****Email: Customerservice@questaircraft.com****SPECIAL INSTRUCTIONS:**

Quest Safety Communiqué QSC-003 is included herein for reference.



TITLE:

SERIAL RANGE: All

QUEST SAFETY COMMUNIQUÉ

Crew Visor Removal

JASC CODE: N/A

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QSC-003

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QSC COVER SHEET

KEY SUMMARY INFORMATION

DETAILED DISCUSSION BEGINS ON PAGE 2

SUBJECT

This Safety Communiqué provides information relating to the crew visors currently employed in the KODIAK[®] 100 aircraft.

AFFECTED MANUALS AND PUBLICATIONS

- None

INDUSTRY REFERENCES

None.

WEIGHT AND BALANCE

N/A.



TITLE:

QUEST SAFETY COMMUNIQUÉ

Crew Visor Removal

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QSC-003

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DISCUSSION

It has recently come to our attention that the crew visors currently employed in the KODIAK[®] 100 were inadvertently omitted from the certification testing of the crew seats. Regulations require that any items that may come into contact with an occupant's head in a crash condition be evaluated to ensure the impact forces are below an established limit. Due to the omission of the visors from the original certification testing, this evaluation was inadvertently not performed for these components.

It is quite possible that the current crew visors are completely compliant with all regulatory requirements; however, Quest must await formal certification. We are currently in the process of performing this evaluation and determining what (if anything) must be done for formal certification issuance on these components.

Nonetheless, flight safety and crashworthiness are of paramount importance to us. As a result, we are sending this communiqué to alert all of our customers to this issue. Further, we recommend that all crew visors be voluntarily removed from all KODIAK[®] 100 aircraft until further notice.

Thank you for your continued support and for your compliance with this visor removal recommendation. If you have any questions, please feel free to contact Quest Customer Care by telephone at (208) 263-1111, toll-free at (866) 263-1112, or via email at CustomerCare@QuestAircraft.com.

---END---



FIELD SERVICE INSTRUCTION

TITLE:

Visor Bracket Retrofit

SERIAL RANGE:

100-0001 thru 100-0085

JASC CODE: 2510

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FSI-052

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SUBJECT

This Field Service Instruction provides guidance for relocating the crew sun visors.

AFFECTED MANUALS AND PUBLICATIONS

None

INDUSTRY REFERENCES

Loctite 243 Technical Data Sheet. <http://tds.loctite.com>

WEIGHT AND BALANCE

Negligible

MANPOWER

The estimated man-hours and minimum number of persons required to perform this Field Service Instruction are listed below. The "Minimum Persons" refers only to maintenance personnel or installers, and unless otherwise specified within this instruction does not include additional personnel that may be needed solely to comply with safety requirements (for example, safety observers that are not performing tasks within this instruction). It is the responsibility of maintenance personnel to comply with safety requirements, including having a safety observer available as needed.

Estimated Man-hours: 5 hours

Minimum Persons: 1 person

If more than the minimum personnel perform this instruction, the actual man-hours required may be reduced due to increased efficiencies. As appropriate, Quest encourages the use of additional personnel; man-hour estimates are based on the minimum personnel required.

RECORD OF COMPLETION

Update the appropriate maintenance records.

QUEST® Aircraft Company, LLC
1200 Turbine Drive
Sandpoint, ID 83864



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REVISION RECORD

REV	PAGE	CHANGE DESCRIPTION
00	All	Initial Release
	1	Removed: Industry References "CBPS-206 Process Specification..." Updated: Estimated Man Hours WAS "4" IS "5"
	4	Updated: Table 2-1 Item 2-1-1 WAS: "100-210-6113-D01" IS: "100-210-6114-D01" Item 2-1-2 WAS "100-210-6113-D02" IS: "100-210-6114-D02" Deleted: Table 2-1 Item 2-1-5 Remaining item numbers updated. Updated: Table 2-1 Item 2-1-6 QTY WAS "4" IS "8" Item 2-1-7 QTY WAS "8" IS "12" Added: Table 2-1 Item 2-1-8 "Crew Visor Mounting Washer" Added: Table 2-1 Item 2-1-9 "Washer Head Screw" Deleted Table 2-2 Item 2-2-1 Remaining item numbers updated. Deleted Table 2-4 Item 2-4-1 Remaining item numbers updated. Added Table 2-4 Item 2-4-2 "#20 Drill Bit (0.161")"
01	5	Updated: Figure 3-1 Visor Bracket Overview
	6	Deleted: Section 5.1 #2 Remaining item numbers updated. Updated: Figure 5-1
	7	Update: Figure 5-2 Visor Hardware Assembly Deleted: Steps 4 & 5. Remaining item numbers updated. Updated: Figure 5-3 Bracket Edge Distance
	8	Updated: Step 6 & 7. Deleted: Caution Updated: Section 5.2 to reflect part number changes from Table 2-1.
	10	Added: Step 7



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1. Special Safety Instructions

1.1 Warnings

Failure to comply with “Warnings” contained in this instruction may result in financial loss, significant delay in the completion time, and/or serious injury to personnel.

1.2 Cautions

Failure to comply with “Cautions” contained in this instruction may result in the destruction of components, unnecessary complications, the need to reverse completed work, and/or delays in the completion time.

1.3 Notes

“Notes” are provided when additional information may lead to an increase in efficiency.

2. Parts, Tools, and Equipment

The following tables describe the parts, tools, and equipment necessary to successfully complete this instruction. Where applicable, reference to drawings provided with this instruction is provided.

Table 2-1: Parts and Tools Included in the Service Kit

Item #	Part No.	Qty	Description	Drawing No.	Dwg Item #
2-1-1	100-210-6114-D01	1	Left Crew Visor Mounting Bracket	N/A	N/A
2-1-2	100-210-6114-D02	1	Right Crew Visor Mounting Bracket	N/A	N/A
2-1-3	100-210-6120-01	1	Right Clamp-Down Anvil Assembly	N/A	N/A
2-1-4	100-210-6120-02	1	Left Clamp-Down Anvil Assembly	N/A	N/A
2-1-5	MS21045-08	4	Self Locking Nut	N/A	N/A
2-1-6	NAS1801-08-10	8	Hex Head Screw	N/A	N/A
2-1-7	NAS1149FN832P	12	Washer	N/A	N/A
2-1-8	100-210-6115	2	Crew Visor Mounting Washer	N/A	N/A
2-1-9	AN525-10R7	6	Washer Head Screw	N/A	N/A

Table 2-2: Consumables Included in the Service Kit

Item #	Part No.	Qty	Description	Drawing No.	Dwg Item #
2-2-1	LOCTITE-243-0.5mL	1	Loctite 243 ¹	N/A	N/A

¹: Consumables may be shipped separately from the primary kit.

Table 2-3: Serial-Number-Specific Parts Included in the Service Kit

Item #	Part No.	Qty	Description	Drawing No.	Dwg Item #
2-3-1	N/A	-	N/A	N/A	N/A

Table 2-4: Parts and Tools NOT Included in the Service Kit

Item #	Part No.	Qty	Description	Drawing No.	Dwg Item #
2-4-1	Commercially Available	1	2" Masking Tape	N/A	N/A
2-4-2	Commercially Available	1	#20 Drill Bit (0.161")	N/A	N/A

3. General

This Field Service Instruction provides guidance for relocating the pilot and copilot visor assemblies.

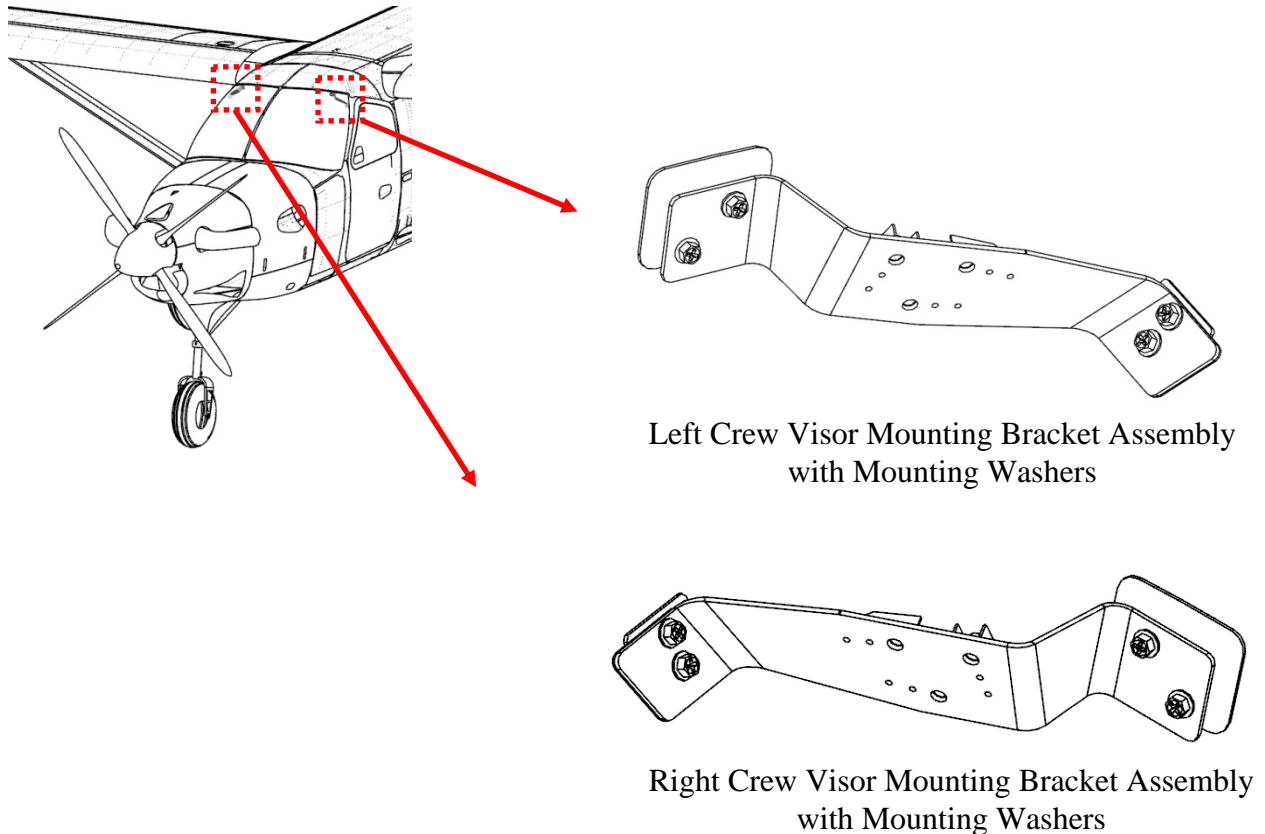


Figure 3-1: Visor Bracket Overview

4. Preparation

Remove the flight compartment headliner in accordance with the *KODIAK® 100 Airplane Maintenance Manual*, Chapter 25.

5. Instructions

Perform the following steps on both sides of the aircraft to install the new visor mount brackets:

▲ NOTE ▲

All images are of the pilot's side installation.

5.1 Install Pilot's Visor Bracket

1. Using **Figure 5-1** as a guide, hold the new left visor bracket (P/N 100-210-6114-D01) in its approximate location and mark where the holes will be located on the upper frame.

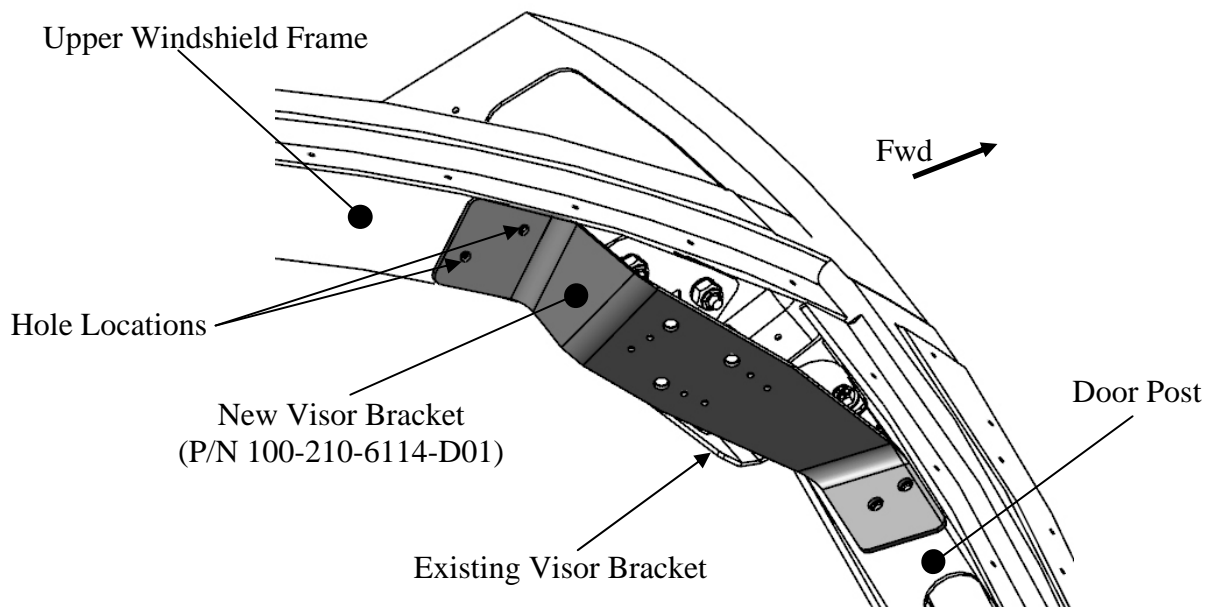


Figure 5-1: Visor Bracket Location

- Using **Figure 5-2** as a guide, pre-assemble the washers (P/N NAS1149FN832P), screws (P/N NAS1801-08-10), and anvil assembly (P/N 100-210-6120-02) onto the new visor bracket (P/N 100-210-6114-D01). Allow the anvil assembly (P/N 100-210-6120-02) to be very loose on the screws (P/N NAS1801-08-10).

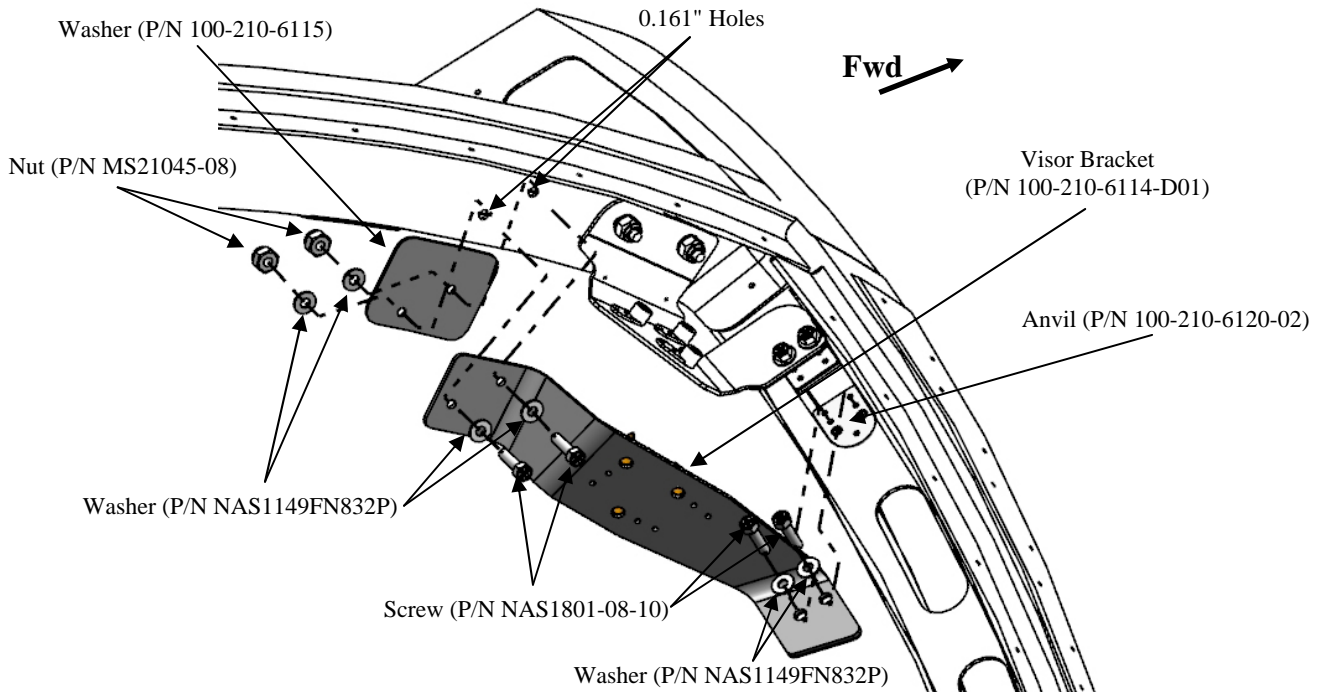


Figure 5-2: Visor Hardware Assembly

- Slide the anvil assembly (P/N 100-210-6120-02) into place in the side frame lightening hole.
- Ensure a minimum edge distance of $0.020'' +0.030 - 0.00$ is maintained between the bottom edge of the upper windshield frame and the bottom edge of the visor bracket. Refer to **Figure 5-3** for further details.
- Using **Figures 5-1** and **5-3**, position the visor bracket (P/N 100-210-6114-D01) and mark the center of the holes in the bracket onto the upper windshield frame.

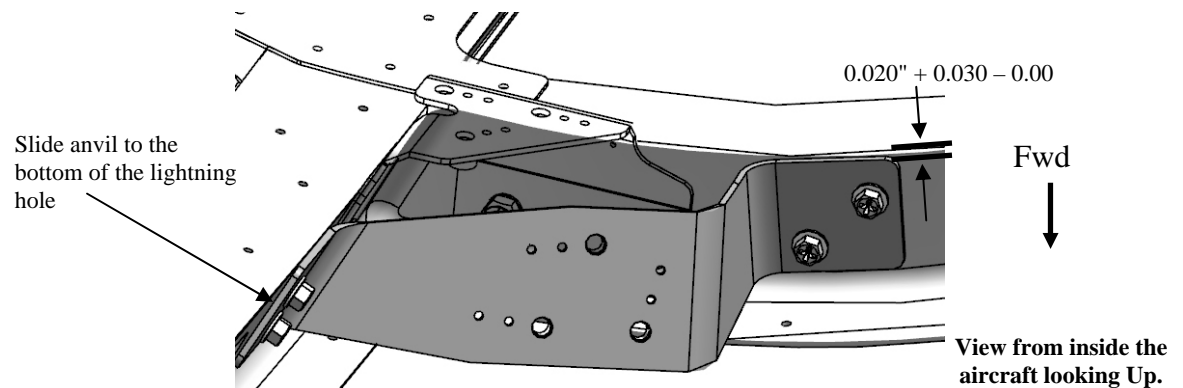


Figure 5-3: Bracket Edge Distance

6. Drill two (2) holes in the upper windshield frame (0.161" to 0.167"), and deburr as necessary.
7. Install the washer (P/N 100-210-6115), four (4) screws (P/N NAS1801-08-10), six (6) washers (P/N NAS1149FN832P), and two (2) nuts (P/N MS21045-08). Refer to **Figure 5-2**.
8. Torque the nuts (P/N MS21045-08) and the screws (P/N NAS1801-08-10) to 12-15 in-lb.



Figure 5-4: Hole Locator

5.2 Install Copilot's Visor Bracket

Repeat the steps in **Section 5.1** on the co-pilot side of the aircraft using the remaining visor bracket (P/N 100-210-6114-D02), washer (P/N 100-210-6115), and anvil assembly (P/N 100-210-6120-01).

5.3 Finish the Installation

1. Using a piece of 2" masking tape, make a hole locator and tape to windshield. Lay the locator over the new visor bracket and mark the center of the three nutplates. See **Figure 5-4**.
2. Fold both hole locators out of the way and reinstall the forward cockpit headliner panel in accordance with the *KODIAK® 100 Airplane Maintenance Manual*, Chapter 25.
3. Lay the hole locators over the headliner and use a sharp scribe or punch to transfer the holes through the left and right locators into the headliner. See **Figure 5-5**.



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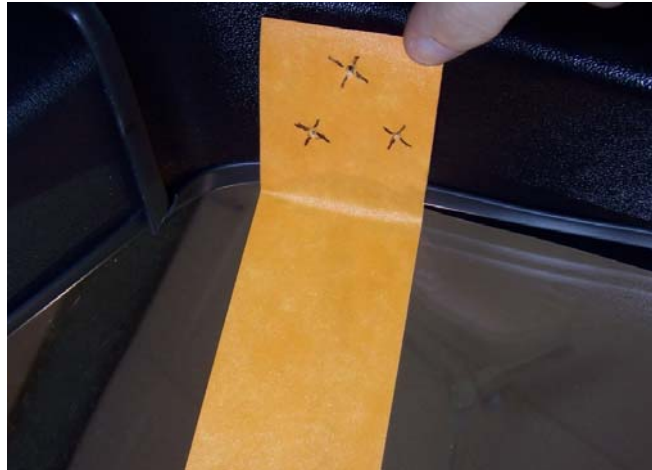


Figure 5-5: Locating Nutplate Holes

4. Drill #40 holes in the locations marked (left and right side). Carefully enlarge the holes to 0.194", adjusting to match the nutplates. The holes may need to be slightly oversized to match the nutplates.
5. Install and position both visor assemblies in their new locations. Refer **Figure 5-6**.

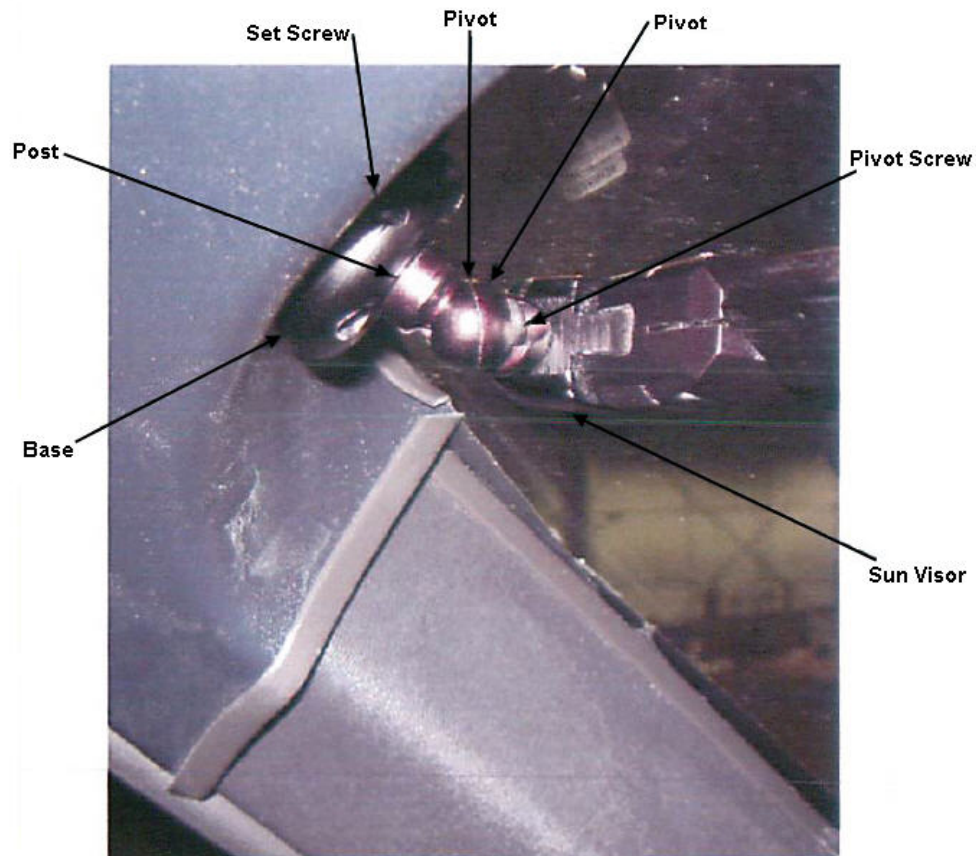


Figure 5-6: Visor Mounting Position



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- a. When the final location is determined, use LOCTITE[®] 243 in the following locations:
 - i. Between the base and post
 - ii. Between the set screw and base
 - iii. Between the pivot faces
 - iv. On the pivot screw

▲ NOTE ▲

Do not apply LOCTITE[®] to any other joints. Reference the latest revision of the manufacturer's instructions for further details.

- b. If the base plate is secured to headliner, loosen the three mounting screws.
 - c. Loosen the set screw that clocks the position of the post. Rotate the post so that the pivot face is vertical (+/- 5°).
 - d. Tighten the set screw to lock the post in place.
 - e. Loosen the pivot screw and position the pivot to +7 ° /-0 ° of horizontal.
 - f. Tighten the pivot screw.
 - g. Tighten the three mounting screws in the base, if previously loosened.
 - h. Ensure the visor arm does not come in contact with the windshield when rotated in its full range of motion.
 - i. Adjust the other joints of the visor arm as necessary so the visor remains in place under normal flight conditions.
6. Install the remainder of the flight compartment headliner in accordance with the *KODIAK[®] 100 Airplane Maintenance Manual*, Chapter 25.
 7. Install three (3) washer head screws (P/N AN525-10R7) in each of the old visor mount locations on the pilot's side. Repeat on the co-pilot's side.

6. Completion

Record all work performed in the appropriate maintenance records.

---END---