

MANDATORY SERVICE BULLETIN**NUMBER:** SB-004**DATE:** 1/26/2009**SUBJECT:** ELECTRICAL; Potentiometer Replacement**SUMMARY****RECURRENT REQUIREMENTS**

No recurrent requirements associated with this Mandatory Service Bulletin.

BACKGROUND

Quest has identified that a light dimmer potentiometer in the master light control panel has the potential to over-heat. This Service Bulletin is attached to a service kit which will provide parts and instructions to replace the defective potentiometer.

ACTION

Replace and return the potentiometer as described in the replacement instructions in this kit. Once completed, update the KODIAK Maintenance Log Books and send the defective potentiometer to Quest Aircraft in the return shipping provided.

EFFECTIVITY

Serial Numbers 0001 through 0009

AFFECTED PARTS

KODIAK PART AFFECTED:

- *P/N 100-210-4651 Potentiometer*

REPLACEMENT PART FOR AIRCRAFT RECORDS:

- *P/N 100-210-4651 Potentiometer*

COMPLIANCE

This Mandatory Service Bulletin needs to be completed at next scheduled maintenance interval or annual service, whichever occurs first.

INDUSTRY SUPPORT INFORMATION

None

MANPOWER

The instructions contained in this Service Bulletin will take 30 minutes to complete.

COMPLETION

Upon completion, please return the replaced potentiometers to Quest Aircraft as soon as possible.

WARRANTY INFORMATION

This modification is warranty reimbursable for the manpower listed above after the potentiometer has been replaced and been returned to Quest Aircraft.

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SB-004 Light Dimmer Potentiometer Replacement

REPLACEMENT INSTRUCTIONS

1.1 Overview

This document provides instruction for replacing the potentiometer.

Estimated Time to Complete: 30 Minutes

1.2 Parts Included in the Service Kit:

Part Number	Description	Quantity
SB-004	SERVICE BULLETIN AND REPLACEMENT INSTRUCTIONS	1
100-210-4651	POTENTIOMETER	1
MS25082-C7	NUT, PLAIN, THIN, ELECTRICAL	2
MS35333-42	WASHER, LOCK, INTERNAL STAR	1
NAS1149C0616R	WASHER	1
91528-0E2B	KNOB, POTENTIOMETER	1
N/A	RETURN SHIPPING MATERIAL	1

1.3 Tools Required:

Tool Name	Tool Duty
Phillips #2 Screwdriver	Remove the light dimmer faceplate.
9/16" Inch Open End Wrench	Remove and install the retaining nut on the potentiometer.
Small Allen Wrench	Remove and install the potentiometer knob.

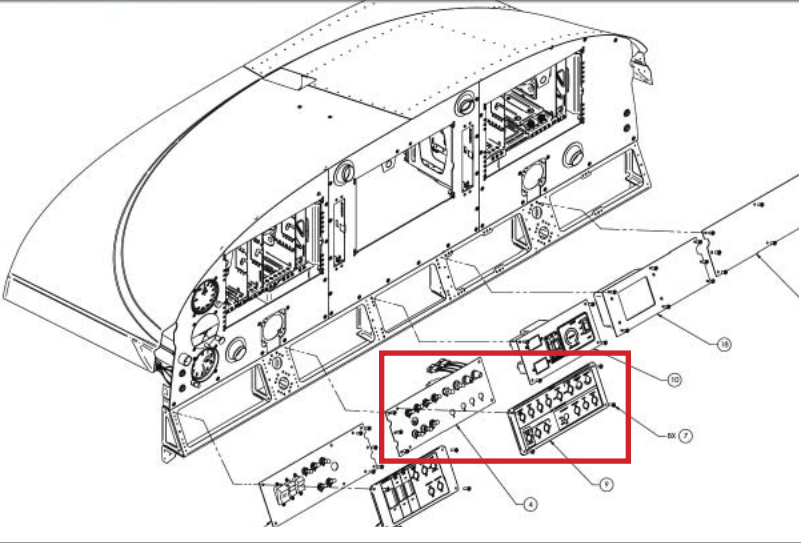
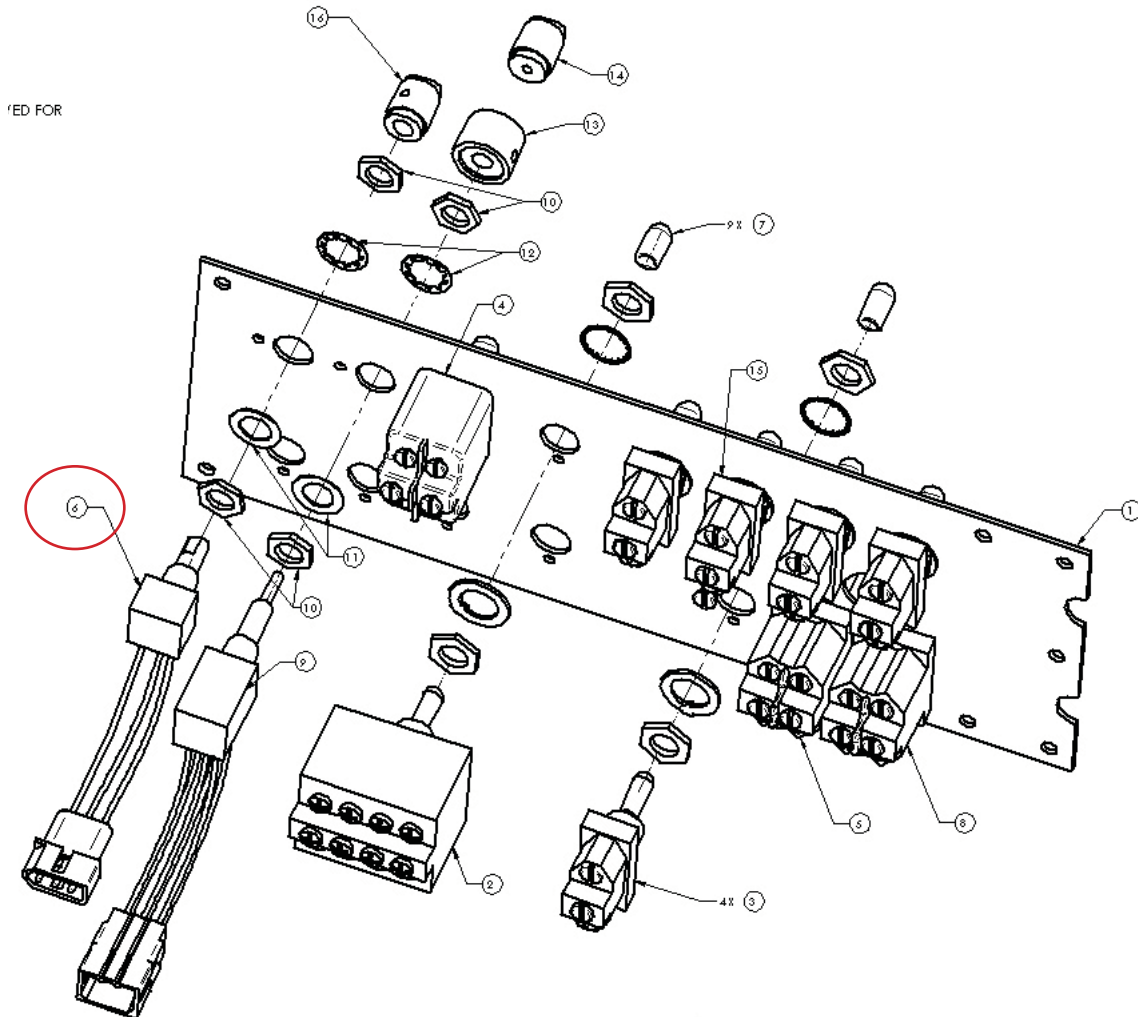
Task	Instruction	Visual
1	Ground the aircraft using an approved grounding wire and grounding point. Ensure master switch is in the OFF position .	No Visual
2	Using a small Allen Wrench, remove knobs from both potentiometers. See Items 13, 14 and 16 on Figure 1 of next page.	No Visual
3	Locate and remove the FOUR screws that attach the lighting control panel to the aircraft.	
4	Reaching behind the dash, disconnect the wiring harness that attaches to the affected potentiometer (Connector J/ P225D). See Figure 1 on the next page.	See Figure 1 on next page for diagram.
5	Using a 9/16" Open End Wrench, remove the potentiometer from the faceplate.	
6	Install the new potentiometer using two 9/16"s Open End Wrenches.	
7	Re-connect the Wiring Harness Connector to the potentiometer (J/P225D).	
8	Re-install the FOUR screws that attach the faceplate to the aircraft dash.	
9	Turn on power and ensure the potentiometer is working correctly by verifying the potentiometer properly dims and brightens the switch panel and circuit breaker panel backlighting.	No Visual
10	Record the work in the Maintenance Log Book and send the replaced unit to Quest Aircraft with the shipping materials supplied.	No Visual

FIGURE 1 - Installation view



LIST OF MATERIALS OR PARTS LISTS

QTY	ITEM NO.	NOMENCLATURE OR DESCRIPTION	PART OR IDENTIFYING NUMBER	DASH NO.	NOTE OR SPECIFICATION	ZONE
1	1	SUB-PANEL, PILOTS RH	100-210-4601			C2
1	2	SWITCH, TOGGLE, FOUR POLE	MS27406-1		NOTE 2	C2
4	3	SWITCH, TOGGLE, SINGLE POLE	MS24523-22		NOTE 2	C2
1	4	SWITCH, TOGGLE, DOUBLE POLE	MS27407-1		NOTE 2	C2
1	5	SWITCH, TOGGLE, DOUBLE POLE	MS24524-22		NOTE 2	C2
1	6	ASSY, POTENTIOMETER	100-210-4651		NOTE 3	C2
9	7	SWITCH COVER, WHITE	11-00816			C2
1	8	SWITCH, TOGGLE, DOUBLE POLE	8534K4E21		EATON; NOTE 2	C4
1	9	ASSY, DUAL CONCENTRIC, POTENTIOMETER	100-210-4652			C6
4	10	NUT, PLAIN, THIN, ELECTRICAL	MS25082-C7			D6
2	11	WASHER	NAS1149C0616R			D6
2	12	WASHER, LOCK, INTERNAL STAR	MS35333-42			E5
1	13	KNOB, BASE, POTENTIOMETER	91528-1N2BC		STATE ELECTRONICS	E5
1	14	KNOB, POTENTIOMETER	91528-0E1B		STATE ELECTRONICS	F5
1	15	SWITCH, TOGGLE	MS24523-23			E4
1	16	KNOB, POTENTIOMETER	91528-0E2B		STATE ELECTRONICS	F5

--End of Instructions--