


REV	B	<b>APPLICATION</b>			<b>REVISIONS</b>		
		PRODUCT LINE	REV	DESCRIPTION	DATE	APPROVED	APPROVED
SH	1	IDU-III	A	Initial Release per DCA W6336	08/08/07	R. DuRall	D. Boston/L. Evans
			B	Update per DCA W7678	11/07/08	R. DuRall	L. Andujo
DWG. NO.	150-045079						

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<b>APPROVALS</b>				<b>DATE</b>
DRAWN	Robert DuRall	8/7/07		<b>TITLE:</b> <b>SERVICE BULLETIN WSB IDU-III-23</b> <b>(ANNUNCIATED SWITCH REPLACEMENT)</b>
CHECKED	Leslie Evans	8/7/07		
PRODUCT MANAGER	----	---		
ENGINEER	Dean R. Boston	8/7/07		<b>SIZE</b> <b>A</b>
ISSUED	Leslie Evans	8/8/07		
		<b>CAGE CODE</b>	<b>DWG NO.</b>	<b>REV</b>
		<b>1B7G3</b>	<b>150-045079</b>	<b>B</b>
<b>Typed signatures indicate approval. Handwritten signature approval of this document is on file at Wulfsberg Electronics, Prescott, Arizona.</b>		<b>SCALE: NONE</b>		<b>DO NOT SCALE DRAWING</b>



**Wulfsberg Electronics**  
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## SERVICE BULLETIN

**EQUIPMENT:** IDU-III

**DATE:** November 07, 2008

**BULLETIN NUMBER:** WSB IDU-III-23 Revision B

### EFFECTIVITY

This Service Bulletin is **mandatory** for the following equipment operating on Bell 206/407 rotorcraft using STC SR02209AK and TCCA STC SH06-6 operating outside of FAA jurisdiction.

LRU P/N	HDWR Mod	SWID
401-045500-[ ]	0101 or 0202	5.0B or later FAA approved SWID

This Service Bulletin is **optional** for the following equipment installed on all other aircraft in accordance with the following FAA STCs: SR02238AK, SR02230AK, and SR01673SE.

LRU P/N	HDWR Mod	SWID
401-045500-[ ]	0101 or 0202	5.0B or later FAA approved SWID

### REASON

#### **Features and Changes:**

1. Replace the TAWS INHIBIT switch with new split-style bezel annunciated switch to all rotorcraft installations.
2. Add or replace the LOW ALTITUDE switch with a new split-style bezel annunciated switch to all rotorcraft installations.

### DESCRIPTION

The FAA STCs listed under Effectivity, above include specific annunciator switches. Since initial approval and installation, a set of switches with lighted legends and specific indication of pilot action has been approved. This modification approves replacing the existing TAWS INHIBIT switch with an Aerospace Optics annunciated switch for all rotorcraft installations.

Rotorcraft installations for HTAWS must also include a LOW ALTITUDE switch. If this switch was installed with the original equipment, this modification approves replacing the existing switch with the Aerospace Optics annunciated switch. If this switch was not

installed with the original equipment, this modification approves adding the Aerospace Optics LOW ALTITUDE switch to all rotorcraft installations.

### **COMPLIANCE**

This Service Bulletin is **mandatory** for the EFIS operating on Bell 206/407 rotorcraft using STC SR02209AK and TCCA STC SH06-6 operating outside of FAA jurisdiction. This Service Bulletin is **optional** for installations on all other rotorcraft modified per the STC's listed under the Effectivity section of this Service Bulletin.

### **WARRANTY INFORMATION**

Units still in the warranty period may request this modification under the terms of the warranty agreement. Inquiries should be directed to "Customer Support" at the address listed below:

Chelton Flight Systems  
1109 Main Street, Suite 560  
Boise, ID 83702  
Phone: (208) 389-9959  
Fax: (208) 389-9961

Warranty claims will not be reimbursed unless a copy of the completed log book entry including all IDU Serial Numbers is supplied with the warranty claim.

### **APPROVAL**

This Service Bulletin has been reviewed and approved by the FAA.

This modification does not affect the original approval.

### **MANPOWER**

8.0 Man-hours per aircraft.

### **REFERENCES**

System Installation Instructions, 150-045264.

### **MATERIAL INFORMATION**

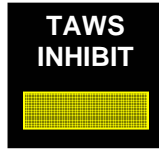
The parts required to modify the airframe in accordance with this Service Bulletin may be obtained by contacting the vendors listed below.

### **PARTS REQUIRED**

<b><u>ITEM</u></b>	<b><u>QTY</u></b>	<b><u>PART NUMBER</u></b>	<b><u>DESCRIPTION</u></b>	<b><u>MANUFACTURER</u></b>
1	1	95-44-15-B6-64407	TAWS INHIBIT Switch	Aerospace Optics
2	1	95-44-15-B6-64408	LOW ALTITUDE Switch	Aerospace Optics
3	2	18-200	Connector Kit	Aerospace Optics
4	1	TJSE20708	Diode Module	QPL

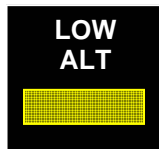
## **AIRCRAFT MODIFICATION PROCEDURE**

1. Locate the TAWS INHIBIT switch on the Instrument Panel.
2. Verify the existing TAWS INHIBIT switch meets the display requirements as shown in Figure 1. If the TAWS INHIBIT switch does requires replacement, go to the “TAWS INHIBIT SWITCH REPLACEMENT” section of this Service Bulletin.



**Figure 1** Approved TAWS INHIBIT Switch Display

3. Locate the LOW ALTITUDE switch on the Instrument Panel if installed.
4. Verify the existing LOW ALTITUDE switch meets the display requirements as shown in Figure 2. If the LOW ALTITUDE switch requires installation or replacement, go to the “LOW ALTITUDE SWITCH INSTALLATION” section of this Service Bulletin.



**Figure 2** Approved LOW ALTITUDE Switch Display

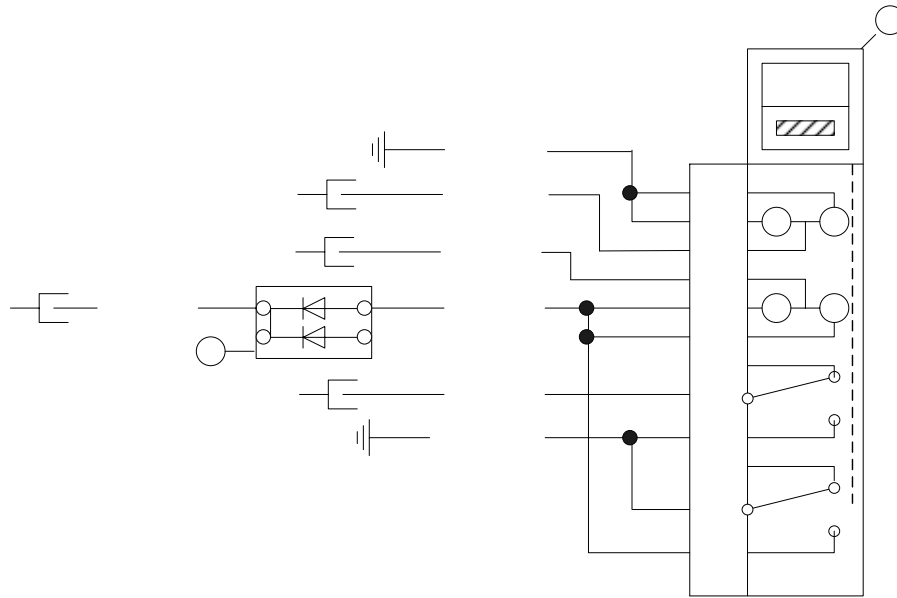
5. Return aircraft to service.

## **TAWS INHIBIT SWITCH REPLACEMENT**

1. Locate the existing TAWS INHIBIT switch as installed in the Instrument Panel or Center Console.

**NOTE:** *If the TAWS INHIBIT switch is installed in the Instrument Panel, access to the wires can be accomplished by removing the Instrument Panel mounting screws and allowing the panel to rotate towards the Pilots’ seats.*

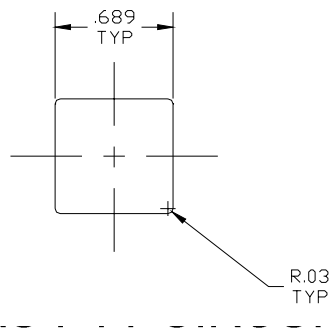
2. If the existing switch is a toggle switch with placard, go to Step 9.
3. Remove the existing switch and de-pin. Ensure all wires are properly marked for reuse.
4. Determine if the existing pins are acceptable and re-pin as required for the new switch.
5. Install the new TAWS INHIBIT (Item 1) switch in the existing hole.
6. Wire the switch using the Aerospace Optics Connector Kit (Item 3) and existing aircraft wires as shown in Figure 3.



**Figure 3** TAWS INHIBIT Switch Wiring

**NOTE:** +28VDC Lighting Bus is a non-dimmable bus protected by a circuit breaker of 5 Amps maximum.

7. Secure the wiring as required.
8. Go to “LOW ALTITUDE SWITCH INSTALLATION” section.
9. Remove the TAWS INHIBIT toggle switch.
10. Use the existing ground wire and discrete wire for the new switch.
11. Cut a new hole using Figure 4 as guidance.



**Figure 4** Typical Annunciated Switch Cutout

12. Install new TAWS INHIBIT switch (Item 1) in the hole.
13. Using the Aerospace Optics Connector Kit (Item 3) and existing aircraft wires; add new wires and a Diode Module (Item 4) to complete the installation as shown in Figure 3.
14. Connect the lighting power to the aircraft’s existing dimmer system.
15. Connect the Press-To-Test (PTT) wire to the aircrafts’ existing PTT circuit.
16. Secure the wiring as required.
17. Go to “LOW ALTITUDE SWITCH INSTALLATION” section.

+28VDC LIGHT

AC DIM

1LI103B22

19

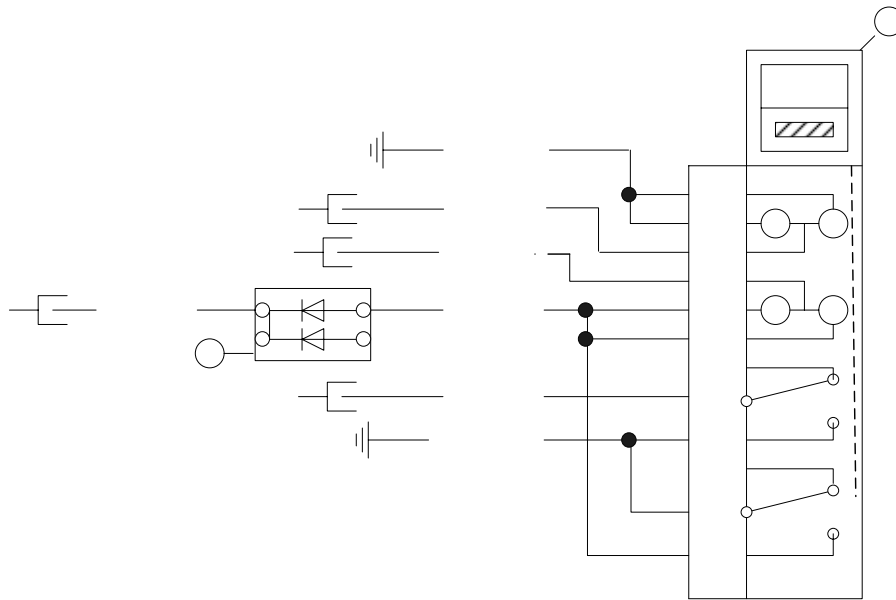
TO PFD

## **LOW ALTITUDE SWITCH INSTALLATION**

1. Determine a suitable location for the LOW ALTITUDE switch.

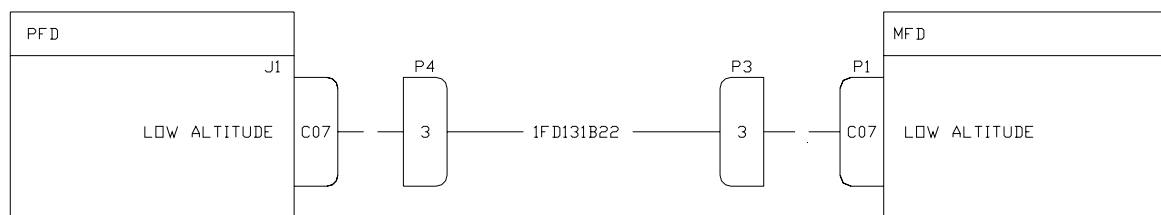
**NOTE:** The LOW ALTITUDE switch should be in the same location as the TAWS INHIBIT switch.

2. Cut a new hole using Figure 4 as guidance.
3. Install the new LOW ALTITUDE switch (Item 2) in the hole.
4. Using the Aerospace Optics Connector Kit (Item 3), a Diode Module (Item 4) and new wires, modify the aircraft to complete the installation as shown in Figure 5.
5. Connect the lighting power using the aircrafts' existing dimmer system.
6. Connect the Press-To-Test (PTT) wire to the aircrafts' existing PTT circuit.
7. Add a wire to the EFIS Interconnect Cable as shown in Figure 6.



**Figure 5** LOW ALTITUDE Switch Wiring

**NOTE:** +28VDC Lighting Bus is a non-dimmable bus protected by a circuit breaker of 5 Amps maximum.



**Figure 6** LOW ALTITUDE Interconnect Wiring

8. Secure the wiring as required.

9. Secure the Instrument Panel and all other panels required for installation of the switch(es).
10. Proceed to the "TESTING" section of this Service Bulletin.

### **GROUND TESTING**

1. Verify that the aircraft is ready for power application.
2. Connect the aircraft's battery.
3. Remove the IDU from the MFD tray.
4. Apply Avionic power.
5. Verify the "TAWS INHIBIT" and "LOW ALT" are illuminated on the switches.
6. Press the TAWS INHIBIT switch and verify the lower portion of the switch illuminates.
7. Using a DMM, measure the resistance from J1 Pin C06 of the MFD tray to airframe ground. The resistance should be approximately 300 ohms.
8. Press the TAWS INHIBIT switch and verify the lower portion of the switch extinguishes.
9. Using a DMM, measure the resistance from J1 Pin C06 of the MFD tray to airframe ground. The resistance should be greater than 1M ohms.
10. Press the LOW ALTITUDE switch and verify the lower portion of the switch illuminates.
11. Using a DMM, measure the resistance from J1 Pin C07 of the MFD tray to airframe ground. The resistance should be approximately 300 ohms.
12. Press the LOW ALTITUDE switch and verify the lower portion of the switch extinguishes.
13. Using a DMM, measure the resistance from J1 Pin C07 of the MFD tray to airframe ground. The resistance should be greater than 1M ohm.
14. Adjust the aircrafts' dimmer system and verify that the bottom half of both switches adjust with the system.

**NOTE:** *Switch function (top half) should not dim during Step 14.*

15. Press the aircraft's PTT system and verify the lower portion of both switches illuminate while the PTT switch is pressed, and extinguishes when the PTT switch is released.
16. Remove Avionic power.
17. Remove power from the aircraft.
18. Insert the IDU into the MFD tray and secure.