

ALERT SERVICE BULLETIN REVISION TRANSMITTAL SHEET

MODEL BD-100-1A10 (CL-300)

Discard the Basic Issue of this Alert Service Bulletin dated Oct 17/2005,
and replace it in its entirety with this Revision 01.

Alert Service Bulletin No. A100-30-03

Date of Basic Issue Oct 17/2005

Revision No. 01 Dated Dec 21/2005

For action applicable to aircraft on which the Basic Issue of this Alert Service Bulletin was done, refer to the retroactive action box on Page 1 of this Alert Service Bulletin.

This revision is issued to:

1. Inform the operator that this Service Bulletin has been converted to an Alert Service Bulletin.
2. Revise the title of the Alert Service Bulletin to show the additional electrical connections to be verified for correct torque.
3. Change, in paragraph 1.A., the effectivity of the aircraft affected by the Alert Service Bulletin.
4. Change, in paragraph 1.B., the narrative text to describe the additional electrical connections to be verified for correct torque.
5. Change, in paragraph 1.C., the instructions summary to describe the additional electrical connections to be verified for correct torque.
6. Change, in paragraph 1.D., the compliance statement to show a compliance start time of 3 months from the Revision 1 issue date instead of the Basic issue date of the Alert Service Bulletin.
7. Change, in paragraph 1.F., the reported man-hours that goes from 3 man-hours to 4 man-hours, and change the labor cost statement to show a shortened scheduling time period, which goes from 12 months to 3 months.

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8. Change, in paragraph 1.K., the Restriction and/or Special Instruction (RSI) revision issue identifier, that goes from Rev. -- to Rev. B.
9. Change, in paragraph 2.A.(5), the description of the instruction so that the side window terminals P and G are part of the text.
10. Add a cautionary statement between paragraphs 2.B.(5) and 2.B.(6).
11. Add paragraphs 2.B(6), 2.B.(7) and 2.B.(8). to describe the torque check instructions related to windshield terminals L1, L2, G, and H, and side window terminals P and G.
12. Make miscellaneous minor changes, as necessary, with no change of context.

ALERT SERVICE BULLETIN SUMMARY

This Alert Service Bulletin is available at:

www.cic.bombardier.com

MODEL BD-100-1A10 (CL-300)

ATA 30-41

ICE AND RAIN PROTECTION

SPECIAL CHECK – WINDSHIELD AND SIDE WINDOW ANTI-ICE – TORQUING OF ELECTRICAL CONNECTIONS AT TERMINAL BLOCKS TB3 AND TB4; GROUND STUDS GS2269, GS2270, GS2273 AND GS2274; WINDSHIELD TERMINALS G, H, L1 AND L2; AND SIDE WINDOW TERMINALS P AND G

The information below is provided for your reference. For full details, please see corresponding paragraph contained within this bulletin.

EFFECTIVITY	A/C Serial No. 20006 to 20046, 20048, 20051 and 20052		
COMPLIANCE	Alert		<input checked="" type="checkbox"/>
	Recommended		<input type="checkbox"/>
	Optional		<input type="checkbox"/>
MANPOWER	4 man-hours		
KITS and/or PARTS	YES <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
TOOLING	YES <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
GSE	YES <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
REQUIRED FOR SMART PARTS	YES <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
PREREQUISITE BULLETINS	N/A		

To place an order for material or kits, please call Bombardier Spare Parts Sales at:

1-888-222-1428 (in North America)
1-316-946-2377 (outside North America)

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SPECIAL CHECK – WINDSHIELD AND SIDE WINDOW ANTI-ICE – TORQUING OF ELECTRICAL CONNECTIONS AT TERMINAL BLOCKS TB3 AND TB4; GROUND STUDS GS2269, GS2270, GS2273 AND GS2274; WINDSHIELD TERMINALS G, H, L1 AND L2; AND SIDE WINDOW TERMINALS P AND G

RETROACTIVE ACTION

THE ACTIONS THAT FOLLOW IS RECOMMENDED FOR AIRCRAFT ON WHICH THE BASIC ISSUE OF THIS ALERT SERVICE BULLETIN WAS DONE:

- (1) Make sure that the electrical connections at windshield terminals G, H, L1 and L2 are tightened correctly.
- (2) Make sure that the electrical connections at side windows terminals P and G are tightened correctly.

1. PLANNING INFORMATION

A. Effectivity

BD-100-1A10 aircraft, Serial No. **20006 to 20046, 20048, 20051 and 20052.**

NOTE: The instructions given in this Alert Service Bulletin are only applicable to the systems and parts installed at the time of delivery of the aircraft or as changed by Bombardier Aerospace Service Bulletin(s).

Before you do this bulletin, examine all STC, STA or equivalent action changes to make sure that this bulletin can be completed.

Refer to applicable governmental agency regulations and requirements and make sure that the work described in this Service Bulletin is performed in compliance with manufacturer's recommendations and/or acceptable industry standards.

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B. Reason

This Alert Service Bulletin describes a special check to be done on the electrical connections found on terminal blocks TB3 and TB4; ground studs GS2269, GS2270, GS2273 and GS2274; windshield terminals G, H, L1 and L2; and side window terminals P and G. These electrical connections are related to the flight compartment windshield and side window heater systems.

The purpose of the special check is to make sure that there are no loose electrical connections at the specified terminal blocks, ground studs and terminals. This will ensure good electrical continuity and prevent the possibility of overheating at the electrical connection points.

C. Description

This Alert Service Bulletin gives instructions to:

- Get access to terminal blocks TB3 and TB4; ground studs GS2269, GS2270, GS2273 and GS2274; windshield terminals G, H, L1 and L2; and side window terminals P and G,
- Make sure that the electrical connections at the specified terminal blocks, ground studs and terminals are tightened to the torque values given in this Service Bulletin, and
- Do the necessary tests to make sure that the windshield and side window heater systems operate correctly.

D. Compliance

Recommended within 3 months from this Alert Service Bulletin release date (Revision 1 Issue).

E. Approval

The technical content of this Alert Service Bulletin has been approved under the authority of Transport Canada Civil Aviation (TCCA) Design Approval Organization (DAO) No. DAO #93-Q-02.

- NOTES:
1. The technical content of this Alert Service Bulletin is accepted by the FAA under the Canada/USA bilateral Aviation Safety Agreement.
 2. The technical content of this Alert Service Bulletin is accepted by the JAA and by EASA in accordance with established procedures.

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F. Manpower

- NOTES:**
1. The man-hours given are estimates to help you schedule the tasks given in this bulletin. The estimates are for direct labor performed by an experienced crew and do not include the time for familiarization, planning, aircraft preparation in hangar such as towing and positioning of scaffolds, removal of interior furnishings, repainting, supervision and inspection.
 2. This Alert Service Bulletin may require the use of consumable materials that have specific curing times (refer to paragraph 3.). The accumulated curing time is not included in the labor estimates and should be considered for planning purposes before you schedule this Service Bulletin.

4 man-hours are necessary to do this special check.

Labor is at no cost if the work is done at Bombardier Business Aviation Services (BBAS) or Authorized Service Facilities. For Bombardier Aerospace to pay for the labor, this Alert Service Bulletin must also be scheduled in less than 3 months from its release date (Revision 1 Issue).

G. Material - Cost and Availability

No kit is necessary to do this special check. For material data, refer to paragraph 3.

NOTE: This Alert Service Bulletin must be done for you to stay or enroll in the Smart Parts Plus Program.

H. Tooling

GSE REFERENCE NO.	PART NO.	DESCRIPTION
24-00-24	S4933959-501	Tag, Circuit Breaker
56-10-02	G600-560003-1	Discharger, Electrostatic

NOTE: For Ground Support Equipment, refer to the Bombardier Challenger 300 GSE on the website at cic.bombardier.com.

Challenger 300 have no ITEM, it is a list of equipment on the web site.

I. Weight and Balance

No change.

J. Electrical Load Data

No change.

K. References

- Bombardier Aerospace, Restriction and/or Special Instruction (RSI), C-100-000-30-0058, Rev. B.
- BD-100 Aircraft Maintenance Manual (AMM), Chapters 6, 20, 23, 24, 25, 30 and 34.
- BD-100 Wiring Manual (WM), Chapter 20.

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L. Other Publications Affected

None.

M. Equivalent Service Bulletin

None.

2. ACCOMPLISHMENT INSTRUCTIONS

- NOTES:
1. All TASKs referenced in the procedures that follow are from the BD-100 Aircraft Maintenance Manual, unless otherwise specified.
 2. All references made to zones, access panels and/or doors, are from the BD-100 Aircraft Maintenance Manual, Chapter 6.

A. Aircraft Setup

- (1) Obey all electrical/electronic safety precautions. Refer to TASK 24-00-00-910-801.
- (2) Open and tag the circuit breakers that follow:

LOCATION	CB NO.	NAME	ZONE
LCBP	B1	L AUDIO	211
LCBP	C2	ATT HDG 1	211
LCBP	E8	L WINDSHIELD CTRL	211
LCBP	E9	L WINDSHIELD PWR	211
RCBP	B1	R AUDIO	212
RCBP	C2	ATT HDG 2	212
RCBP	E8	R WINDSHIELD CTRL	212
RCBP	E9	R WINDSHIELD PWR	212
LSPC	D8	L SIDE WINDOW PWR	211
LSPC	D9	L SIDE WINDOW CTRL	211
RSPC	D8	R SIDE WINDOW PWR	212
RSPC	D9	R SIDE WINDOW CTRL	212

WARNING: BE CAREFUL WHEN YOU WORK ON OR NEAR THE WINDSHIELD AND SIDE WINDOWS. THE WINDSHIELD AND SIDE WINDOWS SURFACES CAN KEEP A HIGH LEVEL OF STATIC CHARGE FOR MANY HOURS AFTER FLIGHT. THIS STATIC CHARGE CAN CAUSE INJURY TO PERSONS.

- (3) Remove the static charge from the flight compartment windshield and the side windows. Use electrostatic discharger (GSE 56-10-02).

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- (4) To get access to the terminal blocks TB3 and TB4 and the ground studs GS2269 and GS2270, on each side do as follows:
 - (a) Remove the COMPASS control panel. Refer to TASK 34-21-21-000-801.
 - (b) Remove the audio control panel (ACP). Refer to TASK 23-51-05-000-801.
 - (c) On the side instrument panel, detach the air conditioning outlet from the air conditioning duct.
 - (d) Remove the side instrument panel.
- (5) To get access to the ground studs GS2273 and GS2274, and side window terminals P and G, on each side do as follows:
 - (a) Remove the side panel. Refer to TASK 25-12-05-000-801.

B. Special Check

- NOTES:
1. While you do the special check, inspect the terminal lugs attached to the terminal blocks and ground studs for condition. Also inspect the end of the wires and the surrounding insulation for condition. Pay particular attention for evidence of arcing and heat damage and repair as applicable. For electrical repairs, refer to the WM, Chapter 20.
 2. For the location of the terminal blocks and ground studs, refer to Figure 1.
 3. Windshield terminals G, H, L1 and L2 are found at the bottom edge of each windshield section.
 4. Side window terminals P and G are found at the bottom edge of each side windows.
 5. For the torquing of threaded fasteners, refer to TASK 20-21-00-910-801.
 6. For the use of a torque wrench, refer to TASK 20-20-00-910-802.
- (1) Remove the cover from terminal blocks TB3 and TB4.
 - (2) Make sure that the electrical connections at terminal blocks TB3 and TB4 are tightened to 24 to 30 lbf in (2.7 to 3.4 Nm).
 - (3) Install the cover back onto terminal blocks TB3 and TB4.
 - (4) Make sure that the electrical connections at ground studs GS2269 and GS2270 are tightened to 65 to 75 lbf in (7.4 to 8.5 Nm).
 - (5) Make sure that the electrical connections at ground studs GS2273 and GS2274 are tightened to 32 to 37 lbf in (3.7 to 4.2 Nm).

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CAUTION: WHEN YOU TIGHTEN THE WINDSHIELD TERMINALS, MAKE SURE THAT THE TOP OF THE GLARESHIELD PANEL IS ADEQUATELY PROTECTED. IF YOU DO NOT DO THIS, THE SURFACE OF THE GLARESHIELD PANEL COULD BE DAMAGED BY THE BLADE OF THE TORQUING TOOL WHILE YOU TIGHTEN THE WINDSHIELD TERMINAL.

- (6) Make sure that the LH/RH windshield terminals L1 and L2, and LH/RH side window terminals P and G are tightened to 25 to 30 lbf in (2.8 to 3.4 Nm).
- (7) Make sure that the LH/RH windshield terminal H is tightened to 35 to 40 lbf in (4.0 to 4.5 Nm).
- (8) Make sure that the LH/RH windshield terminal G is tightened to 45 to 50 lbf in (5.1 to 5.7 Nm).

C. Pre-Testing

- (1) For each side, do as follows:
 - (a) Install the side panel. Refer to TASK 25-12-05-400-801.
 - (b) Install the side instrument panel.
 - (c) On the side instrument panel, attach the air conditioning outlet back onto the air conditioning duct. Use a tie down strap, specification MS3367-6-9.
 - (d) Install the ACP. Refer to TASK 23-51-05-400-801.
 - (e) Install the COMPASS control panel. Refer to TASK 34-21-21-400-801.
- (2) Remove the tags and close the circuit breakers that follow:

LOCATION	CB NO.	NAME	ZONE
LCBP	B1	L AUDIO	211
LCBP	C2	ATT HDG 1	211
LCBP	E8	L WINDSHIELD CTRL	211
LCBP	E9	L WINDSHIELD PWR	211
RCBP	B1	R AUDIO	212
RCBP	C2	ATT HDG 2	212
RCBP	E8	R WINDSHIELD CTRL	212
RCBP	E9	R WINDSHIELD PWR	212
LSPC	D8	L SIDE WINDOW PWR	211
LSPC	D9	L SIDE WINDOW CTRL	211
RSPC	D8	R SIDE WINDOW PWR	212
RSPC	D9	R SIDE WINDOW CTRL	212

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D. Testing

- (1) Connect and energize external dc power. Refer to TASK 24-41-00-861-801.
- (2) Do an operational test of the windshield anti-ice system. Refer to TASK 30-41-00-710-801.
- (3) Do an operational test of the side window anti-ice system. Refer to TASK 30-41-00-710-802.
- (4) Do the operational test of the ACP. Refer to TASK 23-51-05-710-801.
- (5) Make sure that the air conditioning outlet on each side instrument panel operates correctly.
- (6) Remove the external dc power. Refer to TASK 24-41-00-861-802.

E. Close-out

Remove all tools, equipment and unwanted materials from the aircraft.

F. Recording

When this Alert Service Bulletin is completed, make an entry in the aircraft log and send the attached Incorporation Notice to Bombardier Business Aircraft Customer Support (BBACS).

3. MATERIAL INFORMATION

A. Material

The consumable material that follows, or equivalent, is necessary to do this Alert Service Bulletin. It can be purchased from a local supplier.

DESCRIPTION	PART No./NAME	SPECIFICATION	QUANTITY	SUPPLIER (See Note)
Strap, Tie Down	-	MS3367-6-9	2	Code: A

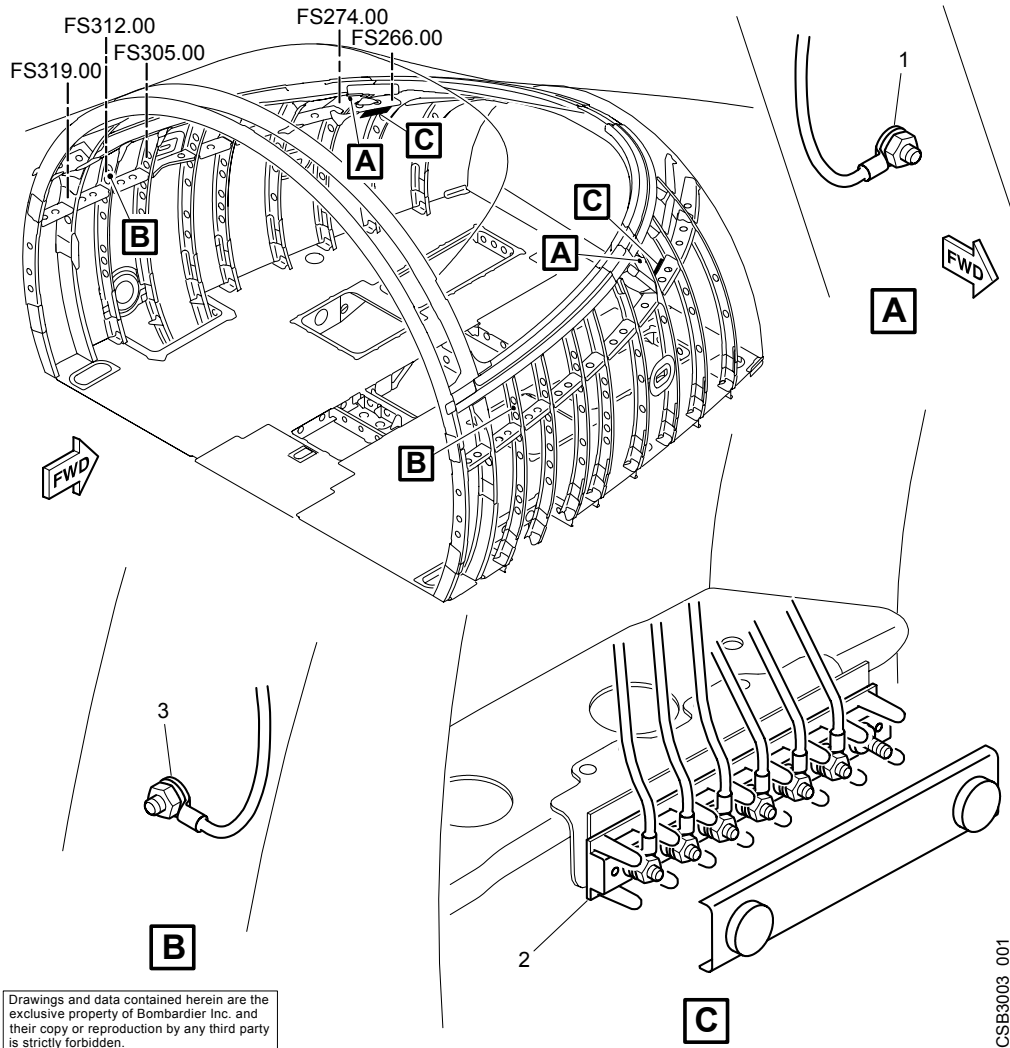
- NOTES:**
1. Bombardier Aerospace does not pay for the consumable material listed above.
 2. Refer to the table below for the supplier's address listed by code.
 3. The Curing Time (CT), if applicable, for each consumable material is indicated with the description of each product.
 4. At time of release of Alert this Service Bulletin, the information on the supplier was valid and accurate. In the event that this information has changed, the operator is encouraged to use the World Wide Web to find a local supplier.

SUPPLIERS ADDRESSES BY CODES
Code: A Commercially Available

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CALL OUT	ELECTRICAL DESIGNATOR	SIDE	AREA
1 (View A)	GS2269 GS2270	Left Right	FS274.00
2 (View C)	TB3 TB4	Left Right	Between FS266.00 and FS274.00
3 (View B)	GS2273 GS2274	Left Right	FS312.00



Torquing of Electrical Connections at Terminal Blocks TB3 and TB4, and Ground Studs GS2269, GS2270, GS2273 and GS2274

Figure 1

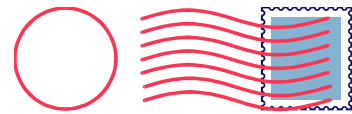
ALERT SERVICE BULLETIN EVALUATION FORM
(YOUR IDEAS WILL HELP US PROVIDE BETTER BULLETINS)

SERVICE BULLETIN	A100-30-03	ISSUE:	Rev. 01	DATED:	Dec 21/2005
TITLE: Special Check - Windshield and Side Window Anti-ice – Torquing of Electrical Connections at Terminal Blocks TB3 and TB4; Ground Studs GS2269, GS2270, GS2273 and GS2274; Windshield Terminals G, H, L1 and L2; and Side Window Terminals P and G					

	STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE
<ul style="list-style-type: none"> • Instructions to do the Alert Service Bulletin were accurate. Comments: 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> • Illustration(s), figure(s), and/or kit drawing(s) were helpful to carry out instructions. Comments: 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> • If a kit was required, did the kit contents received agree with the contents listed in the bulletin? Comments: 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> • The loose parts listed under Paragraph 3., were easily procured. Comments: 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> • Work was accomplished in prescribed time. Comments: 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> • Overall, I was satisfied with this Alert Service Bulletin. Comments: 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

PLEASE SUPPLY US WITH THE FOLLOWING DATA AND FAX TO: (514) 855-2535	
OPERATOR:	_____
AIRCRAFT SERIAL NO.:	_____
TELEPHONE:	_____
FACSIMILE:	_____
NAME (Please print)	_____

**THANK YOU FOR ANSWERING THIS EVALUATION FORM!
UPON COMPLETION OF THIS EVALUATION FORM, PLEASE FOLD AND RETURN**



Bombardier Business Aircraft Customer Support (BBACS)

P.O. Box 6087, Station Centre-ville
Montréal, Québec, Canada H3C 3G9

Attention: Supervisor, Service Bulletin Group
Department 631

ALERT SERVICE BULLETIN INCORPORATION SHEET – “A100-30-03”

Upon completion of the Alert Service Bulletin, please fill-in, fold and return/or fax to
(514) 855-8798 or e-mail to Fracas at fracas.montreal@aero.bombardier.com

NOTE: For configuration control purposes, please fill out one form for each Service Bulletin.

Alert Service Bulletin Number	Rev.	* Parts Completed	Further Action Required	
			YES	NO
A100-30-03	01	-	<input type="checkbox"/>	<input type="checkbox"/>
-	-	-	<input type="checkbox"/>	<input type="checkbox"/>
-	-	-	<input type="checkbox"/>	<input type="checkbox"/>

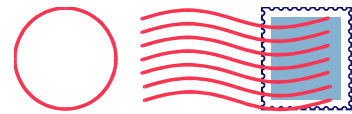
Actual hours to accomplish Alert Service Bulletin:
 Access: _____ Modification: _____ Tests: _____ Restore: _____

* **NOTES:**

1. Where the Alert Service Bulletin is divided into a number of parts (e.g., PARTS A, B, C, D, etc.) which can be carried out separately, indicate only those parts completed at this time.
2. For repetitive checks (usually PART A) only the initial check should be reported unless otherwise stated in the Service Bulletin.
3. When more than one part is carried out at the same time, each part should be reported.

Is the aircraft enrolled on the CAMP computerized maintenance program?	Yes	No
	<input type="checkbox"/>	<input type="checkbox"/>

Aircraft Serial No. _____	Aircraft Reg. No. _____
Airframe Landings _____	Airframe Hours _____
Date of Incorporation _____	Service Order No. _____
Facility & Location Incorporation Bulletin _____	
SIGNED: _____	DATE: _____



Bombardier Business Aircraft Customer Support (BBACS)

P.O. Box 6087, Station Centre-ville
Montréal, Québec, Canada H3C 3G9

Attention: Maintenance Engineering
Department 051
