

SERVICE BULLETIN INFORMATION SHEET

MODEL BD-100-1A10 (BD-700)

ATA 21-60

AIR CONDITIONING

**MODIFICATION - TEMPERATURE CONTROL -REPLACEMENT OF THE
AIR-CONDITIONING SYSTEM CONTROLLER (ACSC)**

Service Bulletin No.: 700-21-056 **Issue:** Rev 01 **Dated:** Sep 25/2018

The following data is supplied for information only. No revision to the Service Bulletin is necessary.

Keep this Information Sheet with subject Service Bulletin.

This Information Sheet is issued to inform the operators that this Service Bulletin is no longer under a dedicated campaign as indicated in Paragraph 1.G. of the Service Bulletin. If operators now wish to incorporate the Service Bulletin, they should contact Parts Services at 514-855-2999 or 1-866-538-1247.

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SERVICE BULLETIN REVISION TRANSMITTAL SHEET

MODEL BD-700-1A10 (BD-700)

Discard the Basic Issue of this Service Bulletin dated Apr 06/2018, and replace in its entirety with this Revision 01.

Service Bulletin No. 700-21-056

Date of Basic Issue Apr 06/2018

Revision No. 01 Dated Sep 25/2018

This revision has no effect for aircraft on which the Basic Issue of this Service Bulletin was done thus no other action is necessary. Do not sign the log book if you have not done this revision. Keep the previous log book entry. You may make an entry as "Not Applicable" for this revision.

This revision is issued to:

1. Revise, in Paragraph 1.F., the labor coverage statement.
2. Revise, in Paragraph 1.G., the part coverage statement.
3. Make miscellaneous minor changes, as necessary, with no change of context.

700-21-056

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SERVICE BULLETIN SUMMARY

This Service Bulletin is available at:
my.businessaircraft.bombardier.com

MODEL BD-700-1A10 (BD-700)

ATA 21-60

AIR CONDITIONING

MODIFICATION - TEMPERATURE CONTROL - REPLACEMENT OF THE AIR-CONDITIONING SYSTEM CONTROLLER (ACSC)
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The information below is provided for your reference. For full details, including labor and part coverage, please see corresponding paragraph contained within this bulletin.

RECOMMENDED	COMPLIANCE TIME	
RELIABILITY/DISPATCHABILITY/COST AVOIDANCE	At the operator's earliest convenience. Refer to Paragraph 1.D.	
EFFECTIVITY: A/C Serial No. 9002 to 9312, 9314 to 9380 and 9384 to 9429		
MANPOWER: 3 man-hours		
CONTINUED AIRWORTHINESS (CAW) FLEET CAMPAIGN	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
TLMC, CH 5 AFFECTED	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
KITS and/or PARTS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
TOOLING/GSE	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
PLANNING INFORMATION: See important information at the start of Paragraph 1.	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
DEDICATED SCHEDULE	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
PREREQUISITE SERVICE BULLETINS: N/A		

To place an order for parts or kits, please call Bombardier Aerospace Parts Services at:

514-855-2999 or 1-866-538-1247

SERVICE BULLETIN

This Service Bulletin is available at:
my.businessaircraft.bombardier.com

MODEL BD-700-1A10 (BD-700)

ATA 21-60

AIR CONDITIONING

<p>MODIFICATION - TEMPERATURE CONTROL - REPLACEMENT OF THE AIR-CONDITIONING SYSTEM CONTROLLER (ACSC)</p>

1. PLANNING INFORMATION

- NOTES:
1. **Before you do this Service Bulletin, examine all STC, STA or equivalent action changes to make sure that this Service Bulletin can be completed.**
 2. This Service Bulletin is covered by a dedicated schedule. Dedicated schedules are used to reserve and manage inventory due to limited availability of rotatable stock, parts and/or kits. Parts are limited, therefore, advance part scheduling with our In-Service Implementation Team (ISIT) is recommended prior to a maintenance visit. Please contact your Regional Manager (RM), Field Service Representative (FSR) or Customer Service Representative (CSR) to schedule your aircraft as there is a limited availability. The parts will be allocated on a first come first serve basis.

For more information on dedicated schedules, refer to SB 700-00-002.

A. Effectivity

BD-700-1A10 aircraft, Serial No. **9002 to 9312, 9314 to 9380 and 9384 to 9429.**

NOTE: The instructions given in this 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).

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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MODEL BD-700-1A10 (BD-700)

B. Reason

1. Condition:

The in-service reliability of the Pack Discharge Temperature Sensor (PDTs) is not as expected. Root cause investigation identified that most of PACK + FAULT + PDTs Out of Range CAS messages are posted as a result of the issues that follow:

- ACSC no active channel selection on Globals aircraft, and
- RS422 transmission interrupted by the ARINC bus workload, which causes loss of ACSC interchannel communication.

2. Evidence:

ACSC software was modified to eliminate the occurrences of PACK FAULT + PDTs Out of Range CAS + OMS messages by adapting the RS422 transmission to the ARINC bus workload in order to smooth the CPU load and by defaulting to an active channel at start up.

3. Objective/Benefit:

This Service Bulletin gives instructions to replace the ACSC, with new and improved ACSC, Part No. GG546-2040-15. The changes made in the new ACSC software combined with additional improvements such as, optimization of RS422 transmission to smoothen CPU workload (AW700-21-0160), and default active channel implementation at start up (AW700-21-0389), will reduce the occurrence of removal of the Pack Discharge Temperature Sensor (PDTs). The benefits to the operator are improved reliability, dispatchability and reduced unscheduled removals.

C. Description

This Service Bulletin gives instructions to:

- Remove the External Avionics-Compartment Access-Panel (140BB),
- Remove the Air Conditioning System Controllers (ACSC), Part No. GG546-2040-9, -11 or -13,
- Return the removed ACSCs as instructed in Paragraph 1.G.,
- Install the new ACSCs Part No. GG546-2040-15, and
- Do the necessary tests to make sure that the system operates correctly.

MODEL BD-700-1A10 (BD-700)

D. Compliance

Recommended – Reliability/Dispatchability/Cost Avoidance

- NOTES:
1. Bombardier Aerospace recommends that this Service Bulletin be done at the operator's earliest convenience, unless otherwise directed by the airworthiness authority of the operator.
 2. If it is not possible to complete all the instructions in this Service Bulletin because of the aircraft configuration, submit an SRPSA for analysis and to get an approved disposition to complete this Service Bulletin.

E. Approval

The technical content of this 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 Service Bulletin is accepted by the FAA under the Canada/USA bilateral Aviation Safety Agreement.
 2. The technical content of this Service Bulletin is accepted by EASA under the Canada/EU bilateral Aviation Safety Agreement.

F. Manpower

- NOTES:
1. The man-hours given are to help you schedule the tasks given in this Service Bulletin. The man-hours 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.

For more information related to the manpower, refer to SB 700-00-002.

2. This Service Bulletin may require consumable materials that have specific curing times (refer to Paragraph 3). The accumulated curing time is not included in the man-hours and should be considered for planning purposes before you schedule this Service Bulletin.

3 man-hours are necessary to do this modification.

! Bombardier Aerospace does not pay for the labor to do this modification.

G. Material – Cost and Availability

No kit is necessary to do this modification.

The part listed in Paragraph 3.B. is necessary to do this modification.

! Bombardier Aerospace does not pay for the part to do this modification.

MODEL BD-700-1A10 (BD-700)

This Service Bulletin is covered by a dedicated schedule. Dedicated schedules are used to reserve and manage inventory due to limited availability of rotatable stock, parts and/or kits. Parts are limited, therefore, advance part scheduling with our In-Service Implementation Team (ISIT) is recommended prior to a maintenance visit. Please contact your Regional Manager (RM), Field Service Representative (FSR) or Customer Service Representative (CSR) to schedule your aircraft as there is a limited availability. The parts will be allocated on a first come first serve basis.

For more information on dedicated schedules, refer to SB 700-00-002.

Bombardier Aerospace, Parts Services, in Montreal is maintaining a rotatable pool to support this program. Contact Bombardier Aerospace Parts Services for details.

Send the removed units for upgrade to Bombardier Aerospace at one of the two addresses given below:

Learjet Inc. – Core Returns
251-A Wille Road
Des Plaines, Illinois
60018-1861
USA

or

Distribution Centre Frankfurt – Core Returns
Bombardier Aerospace Company GmbH
Hans-Boeckler-Strasse 9
GROSS-GERAU Hesse 64521
Germany

Refer to your Material Return Authorization (MRA) form to find the applicable return address.

For all parts transactions, Bombardier Aerospace's current Spare Parts and Component Repair Price Catalogue General Terms and Conditions apply. These terms and conditions are found on the Bombardier Customer Portal at:

my.businessaircraft.bombardier.com

For those aircraft in new aircraft warranty at the time of Service Bulletin distribution, Smart Parts Plus does not pay for the kit or part at any time.

For those aircraft out of new aircraft warranty at the time of Service Bulletin distribution, Smart Parts Plus pays for the kit and part for up to 24 months from the Service Bulletin distribution date (Basic Issue).

H. Tooling

The equipment and tools listed below are necessary to do this modification:

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GSE REFERENCE NO.	PART NO.	DESCRIPTION
Commercially Available	–	Torque Wrench

I. Weight and Balance

No change.

J. Electrical Load Data

No change.

K. References

- Bombardier Aerospace, Modification Summary, 700T901487, Rev. A-1.
- Bombardier Aerospace, Modification Summary, G700T901487, Rev. A.
- Bombardier Aerospace, Standard Practices Manual (SPM), Chapter 20.
- Bombardier Aerospace, Drawing GG546-2040, Rev. N.
- Global Express BD-700 Aircraft Maintenance Manual (AMM), Chapters 6, 21, 24 and 52.
- Global Express BD-700 Aircraft Illustrated Parts Catalog (AIPC), Chapter 21.
- Advisory Wire AW700-21-0160.
- Advisory Wire AW700-21-0389.

L. Other Publications Affected

None.

M. Equivalent Service Bulletins

For the Global 5000 BD-700-1A11 aircraft, use SB 700-1A11-21-030.

For the Global 5000 BD-700-1A11 Featuring Global Vision Flight Deck aircraft, use SB 700-21-5008.

For the Global 6000 BD-700-1A10 aircraft, use SB 700-21-6008.

2. ACCOMPLISHMENT INSTRUCTIONS

- NOTES:**
1. All TASKs given in the procedures that follow are from the Global Express or Global Express XRS BD-700-1A10, Aircraft Maintenance Manual (AMM) unless otherwise specified.
 2. All references made to zones, access panels and/or doors, are from the Global Express or Global Express XRS BD-700-1A10, Aircraft Maintenance Manual (AMM), Chapter 6.

MODEL BD-700-1A10 (BD-700)

A. Aircraft Setup

NOTE: The steps in the Aircraft Setup section of this Service Bulletin are recommended steps. The steps give a recommendation to get access to the work area. This recommendation is to give a safe work area and to minimize possible damage to surrounding aircraft parts. Alternative steps can be used at the operator's discretion.

- (1) Obey all electrical/electronic safety precautions. Refer to AMM 24-00-00-910-801.
- (2) Remove the External Avionics-Compartment Access-Panel (140BB). Refer to AMM 52-45-11-000-801.

B. Modification

NOTE: If it is not possible to complete all the instructions in this Service Bulletin because of the configuration of the aircraft, submit an SRPSA for analysis and to get an approved disposition to complete this Service Bulletin.

- (1) Obey all electrostatic discharge safety precautions. Refer to AMM 24-00-00-910-802.
- (2) Obey all the air conditioning/pressurization safety precautions. Refer to AMM 21-00-00-910-801.
- (3) Remove the existing Air-Conditioning System Controllers (ACSC), Part No. GG546-2040-9, -11 or -13. Refer to AMM 21-60-21-000-801.
- (4) Return the removed ACSC, Part No. GG546-2040-9, -11 or -13, as instructed in Paragraph 1.G.
- (5) Install the new ACSC, Part No. GG546-2040-15. Refer to AMM 21-60-21-400-801.

C. Close-out

NOTE: The steps in the Close-out section of this Service Bulletin, except for the return-to-service tests, are recommended steps. The steps give a recommendation to install components removed during the Aircraft Setup. This recommendation is to make sure that the aircraft is safe and ready to return to service. Alternative steps can be used at the operator's discretion.

- (1) Remove all tools, equipment and unwanted materials from the aircraft.
- (2) Install the External Avionics-Compartment Access-Panel (140BB). Refer to AMM 52-45-11-400-801.

D. Recording

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

MODEL BD-700-1A10 (BD-700)

In an effort to improve the quality of our technical communications, we are requesting your feedback. Please take a moment to fill out our easy on-line Service Bulletin survey:

<http://csefeedback.aero.bombardier.com>

3. MATERIAL INFORMATION

A. Kit

No kits required.

B. Parts

The part that follows is necessary to do this Service Bulletin and is available from Bombardier Aerospace Parts Services, Montreal:

NEW PART NO.	QTY	ITEM	USED PART NO.	INSTRUCTIONS - DISPOSITION
GG546-2040-15	2	-	GG546-2040-9 or GG546-2040-11 or GG546-2040-13	Refer to Paragraph 1.G.

NOTE: The part number(s) for the item(s) listed above are/is subject to change without revision to this Service Bulletin. In case of discrepancy between this list and any other list, the Illustrated Parts Catalog prevails and shall be used to determine the latest part number.

C. Material

No materials required.

D. Publications

No publications required.

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SERVICE BULLETIN EVALUATION FORM

(Your ideas will help us provide better bulletins)

SERVICE BULLETIN: 700-21-056 **ISSUE:** Rev. 01 **DATED:** Sep 25/2018

TITLE: MODIFICATION – TEMPERATURE CONTROL –
REPLACEMENT OF THE AIR-CONDITIONING SYSTEM CONTROLLER
(ACSC)

In an effort to improve the quality of our technical communications, we are replacing the standard **Service Bulletin Evaluation Form** with an on-line **Service Bulletin Survey** and we are requesting your feedback. Please take a moment to fill out our easy on-line Service Bulletin survey at:

<http://csefeedback.aero.bombardier.com>

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SERVICE BULLETIN INCORPORATION SHEET – "700-21-056"

BOMBARDIER SUBMISSION	<p>Upon completion of the Service Bulletin, please fill-in, fax to (514) 855-8798 or e-mail to Fracas at fracas.montreal@aero.bombardier.com</p> <p>If you're reporting Service Bulletin (SB) Incorporations to CAMP, sending this Incorporation Sheet to Bombardier is not mandatory. If your aircraft is on another tracking system, please contact Bombardier to make arrangements for automated data submission.</p>
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Service Bulletin Number	Rev.	* Parts Completed	COMPLIED WITH			Remarks/Reason (Mandatory if N/A)
			YES	NO	N/A	
700-21-056	01	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

Actual hours to accomplish Service Bulletin: _____

- * **NOTES:**
1. Where the 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.
 4. Fill in 'Remark/Reason' to explain compliance method when N/A is selected. (E.g. Part not installed, N/A by effectivity, N/A by Part Serial Number, etc.)
 5. PCW means 'Previously Complied With'.

Aircraft Serial No. _____	Aircraft Reg. No. _____
Airframe Hours: _____	Airframe Landings _____
S.B. Incorporation Date _____ (dd/mm/yy)	Service Order No. _____
Facility incorporating S.B. _____	
Name _____	Signature _____ Date _____ (dd/mm/yy)
Signature not required if sent by E-Mail	