

SERVICE BULLETIN SUMMARY

This Service Bulletin is available at:

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

ATA 27-51 AND 32-41

FLIGHT CONTROLS

**MODIFICATION – CONTROL AND INDICATION SYSTEMS –
 MODIFICATIONS TO PERMIT ZERO-FLAP TAKE-OFF CAPABILITY
 WITH FULL PERFORMANCE**

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

RECOMMENDED	COMPLIANCE TIME		
RELIABILITY/DISPATCHABILITY/COST AVOIDANCE	Not applicable		
EFFECTIVITY: <u>PART A:</u> A/C Serial No. 9159 to 9207 <u>PART B:</u> A/C Serial No. 9159 to 9304 <u>PART C:</u> A/C Serial No. 9159 to 9205 pre SB 700-11-020			
MANPOWER: PART A: 20 man-hours PART B: 4 man-hours PART C: 68 man-hours			
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: See Paragraph 1.			

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

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

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ATA 27-51, 32-41

FLIGHT CONTROLS

**MODIFICATION – CONTROL AND INDICATION SYSTEMS –
MODIFICATIONS TO PERMIT ZERO-FLAP TAKE-OFF CAPABILITY
WITH FULL PERFORMANCE**

1. PLANNING INFORMATION

- NOTES:
- When this Service Bulletin is done, the Airplane Flight Manual issue that follows **MUST** be used:
 - Airplane Flight Manual, CSP 700-1A, Revision 57.
 - For aircraft, Serial No. **9159** to **9174**, the Service Bulletin that follows is a pre-requisite and must be done before or at the same time as this Service Bulletin.

Service Bulletin	Title
700-31-025	Modification – Integrated Avionics Computer (IAC) System – Batch 2+ IAC Upgrade

- For aircraft, Serial No. **9159** to **9181**, the Service Bulletin that follows is a pre-requisite and must be done before or at the same time as this Service Bulletin.

Service Bulletin	Title
700-27-050	Modification – Control and Indication Systems – Slat/Flap Control Unit (SFCU) Upgrade to Part No. GT415-5900-15

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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4. For aircraft, Serial No. **9159** to **9169**, the Service Bulletin that follows is a pre-requisite and must be done before or at the same time as this Service Bulletin.

Service Bulletin	Title
700-27-053	Modification – Control and Indication Systems – Flight Control Unit (FCU), Upgrade to Part No. GT415-0100-9

5. For aircraft, Serial No. **9173, 9175, 9177, 9179, 9181, 9183, 9184, 9185, 9193, 9194, 9199, 9220, 9230, 9234, 9235, 9236, 9238, 9240, 9242, 9247, 9250, 9252, 9256, 9258, 9262, 9264, 9268, 9270, 9272, 9274** to **9286, 9290** to **9297** and **9300** to **9302**, the Service Bulletin that follows is a pre-requisite and must be done before or at the same time as this Service Bulletin.

Service Bulletin	Title
700-32-021	Special Check/Modification – Wheels and Brakes System – Inspect Brakes for Improper Oxidation Inhibitor and Replace Where Found

6. For aircraft, Serial No. **9159** to **9244**, it is recommended to do the Service Bulletin that follows before or at the same time as this Service Bulletin to allow the use of Flight Management System (FMS) Take-Off/Landing Data (TOLD) for zero-flap take-offs.

Service Bulletin	Title
700-31-031	Modification – Integrated Avionics Computer (IAC) System – IAC -009 Software Upgrade

A. Effectivity

PART A: BD-700-1A10 aircraft, Serial No. **9159 to 9207**

PART B: BD-700-1A10 aircraft, Serial No. **9159 to 9304**

PART C: BD-700-1A10 aircraft pre SB 700-11-020, Serial No. **9159, 9162, 9163, 9165, 9167, 9169, 9171, 9173, 9175, 9177, 9179, 9181, 9183 to 9185, 9187, 9189, 9191, 9193 to 9197, 9199, 9200, 9202, 9203 and 9205.**

All other subsequent BD-700-1A10 aircraft are scheduled for the modification in production (Ref.: Modification Summary, 700T02117, 700T900127 and 700T02282)

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).

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

B. Reason

This modification introduces strapping wires to the Slat/Flap Control Units (SFCU) that will enable the take-off warning logic to permit slats extended, flaps retracted take-off. The take-off logic will however still prohibit take-off with both flaps and slats retracted.

The zero-flap take-off capability will permit aircraft take-off with a larger fuel load, and thus an increase of aircraft range and/or endurance.

Instructions are also given to replace the wheel speed transducers to permit operation over their complete design range of braking operational speeds. This modification will thus provide the full benefit of the zero flaps/slats out operation and other take-off configurations that were previously limited.

On aircraft pre SB 700-11-020, replacement of the Main Landing Gear (MLG) tires is also required because of the higher take-off loads and speeds associated with the zero-flaps take-off configuration.

The new tires Part No. 382K03-3 are not interchangeable with the old tires Part No. 382K03-2 after this modification.

C. Description

This Service Bulletin gives instructions to:

- Get access to the SFCU 1 and 2,
- Do the wiring modification to the SFCU 1 and 2 in PART A,
- Replace the wheel speed transducers in PART B,
- On aircraft pre SB 700-11-020, replace the MLG tires in PART C, and
- Do the necessary tests to make sure the applicable systems operate correctly.

D. Compliance

Recommended – Reliability/Dispatchability/Cost Avoidance

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 the JAA and by EASA in accordance with established procedures.

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.

For more information related to the manpower estimates, 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 labor estimates and should be considered for planning purposes before you schedule this Service Bulletin.

20 man-hours are necessary to do PART A of this modification.

4 man-hours are necessary to do PART B of this modification.

68 man-hours are necessary to do PART C of this modification.

The labor required to do this Service Bulletin is at no cost if:

- (i) the work is done at Bombardier Business Aviation Services (BBAS) or Authorized Service Facilities (ASF), and
- (ii) this Service Bulletin is scheduled in less than 12 months from its release date.

G. Material – Cost and Availability

Kit 700K27-059 is necessary to do PART C of this modification for aircraft pre SB 700-11-020. Only the U.S. Domestic price is shown:

KIT NO.	PRICE
700K27-059	\$4,793.00

The above price can change. For the price outside of the U.S., refer to the last applicable Spare Parts Price Catalog. This data is also available from Bombardier Business Aviation Services (BBAS) at the addresses shown in the catalog.

29 kits were available when this Service Bulletin was released. Sufficient kits will be kept for the estimated amount of orders.

In addition to the kit shown above, the part given in Paragraph 3.B. is also necessary to do PART C of this Service Bulletin on aircraft pre SB 700-11-020.

The part given in Paragraphs 3.C is necessary to do PART A of this Service Bulletin.

The part given in Paragraph 3.D. is necessary to do PART B of this Service Bulletin.

Send the old wheel speed transducers, Part No. GW415-1050-3 or -5, to the address shown below in exchange for -7 wheel speed transducers:

Learjet Inc.
Wichita Distribution Center,
7761 W. Kellog, Bldg 11, Dock 3,
Wichita, KS 67209-0000
USA

For aircraft pre SB 700-11-020, PART C of this Service Bulletin is applicable and, thus, the kit and the parts given in Paragraphs 3.B., 3.C. and 3.D. are available at no cost if a no-charge purchase order is sent to Bombardier Aerospace in less than 12 months from this Service Bulletin release date.

For aircraft post SB 700-11-020, PART C of this Service Bulletin is not applicable and, thus, only the parts given in Paragraphs 3.C. and 3.D. are necessary and available at no cost if a no-charge purchase order is sent to Bombardier Aerospace in less than 12 months from this Service Bulletin release date.

This Service Bulletin is covered by a dedicated campaign. To ensure a timely and effective return/upgrade program, advance scheduling is required through our Customer Services Project Office (CSPO). Please contact your Regional Manager (RM), Field Service Representative (FSR), Customer Support Representative (CSR) or Customer Services Account Manager (CSAM) as soon as practical to schedule your aircraft.

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For aircraft pre SB 700-11-020, Smart Parts Plus does not pay for the kit, the parts given in Paragraphs 3.C. and 3.D. and the initial purchase of tires to do this Service Bulletin. Smart Parts Plus pays for the subsequent normal tire wear replacements.

For aircraft post SB 700-11-020, the kit and the part given in Paragraphs 3.B. are not necessary and Smart Parts Plus does not pay for the parts given in Paragraphs 3.C. and 3.D. to do this Service Bulletin.

H. Tooling (Applicable Only to PART C of this Service Bulletin)

GSE REFERENCE NO.	PART NO.	DESCRIPTION
07X-10-02	02-7835-0100	Jack, MLG Axle Tire Changing
07X-10-03 (optional)	02-7854-0110	Jack, Axle MLG/NLG Combined Tire Changing Dual 12/25 Tons (10 886/22 680 kg)
07X-10-06	03-5822-0000	Support, Rear Fuselage
12-20-02	14-6830-6012	Kit, Tire Servicing Gauge, 0 to 300 psi (0 to 2068.44 kPa)
12-20-04	-	Fit, Safety Tire Inflation
32X-11-06	ANS1910A	Socket, MLG Axle Nut
32X-11-07	14-6868-6000	Cover, MLG Axle Protective
32X-41-02	14-6855-0000	Dolly, MLG Wheel and Brake
-	Commercially Available	Engraving Tool

- NOTES:**
1. Refer to the Global Express XRS BD-700 Illustrated Tool and Equipment Manual to make sure you use the correct equipment configuration.
 2. Refer to the Liability Statement of the publication listed in NOTE 1 for acceptable GSE equivalents.

I. Weight and Balance

No change if PART C of this Service Bulletin is not done.

If PART C of this Service Bulletin is done, the data in the table that follows is applicable:

WEIGHT	MOMENT
+9.2 pounds (4.17 kg)	+6,995.9 pound-inches (806.0 kgm)

J. Electrical Load Data

No change.

K. References

- Bombardier Aerospace, Modification Summary, 700T97306, Rev. C4.
- Bombardier Aerospace, Modification Summary, 700T900127, Rev. D2.
- Bombardier Aerospace, Modification Summary, 700T02117, Rev. A5.
- Bombardier Aerospace, Modification Summary, 700T71042, Rev. A1.
- Bombardier Aerospace, Modification Summary, 700T02282, Rev. A3.
- Bombardier Aerospace, Kit Drawing KGC991-7540, Rev. A.
- Global Express XRS BD-700 Aircraft Maintenance Manual, Chapters 6, 7, 12, 24, 27, 32 and 52.
- Global Express XRS BD-700 Wiring Manual, Chapter 27.
- Global BD-700 Component Maintenance Manual (CMM) – Part One, Chapter 32-48-22 or 32-48-30.
- Global Express XRS BD-700 Illustrated Tool and Equipment Manual, Chapters 7, 12 and 32.
- Bombardier Aerospace, SB 700-11-020
Modification – Flight Compartment Placards – Increased Maximum Take-Off Weight (MTOW) to 99,500 lbs.
- Bombardier Aerospace, SB 700-31-025,
"Modification – Integrated Avionics Computer (IAC) System – Batch 2+ IAC Upgrade".
- Bombardier Aerospace, SB 700-27-050,
"Modification – Control and Indication Systems – Slat/Flap Control Unit (SFCU) Upgrade to Part No. GT415-5900-15".
- Bombardier Aerospace, SB 700-27-053,
"Modification – Control and Indication Systems – Flight Control Unit (FCU), Upgrade to Part No. GT415-0100-9".
- Bombardier Aerospace, SB 700-32-021,
"Special Check/Modification – Wheels and Brakes System – Inspect Brakes for Improper Oxidation Inhibitor and Replace Where Found".
- Bombardier Aerospace, SB 700-31-031,
"Modification – Integrated Avionics Computer (IAC) System – IAC -009 Software Upgrade".
- Messier Dowty, M-DT SB700-32-027,
"BD700 Main Landing Gear Assembly, Inspection and Replacement of the Tires" (not attached).

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L. Other Publications Affected

- Global Express XRS BD-700 Aircraft Illustrated Parts Catalog (AIPC), Chapter 32.
- Airplane Flight Manual (AFM), CSP 700-1A, Revision 57.
- Global Express XRS BD-700 Wiring Manual, Chapter 27.

M. Equivalent Service Bulletin

For the Global 5000 BD-700-1A11 aircraft, use SB 700-1A11-27-012 (when available) or SB 700-1A11-27-022, as applicable.

2. ACCOMPLISHMENT INSTRUCTIONS

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

A. Aircraft Setup

- (1) Obey all electrical/electronic safety precautions. Refer to TASK 24-00-00-910-801.
- (2) Set the circuit breakers that follow to LOCKED (refer to TASK 24-00-00-863-801):

SYSTEM NAME	CIRCUIT BREAKER NAME	BUS NAME
HYD	HYD PUMP 2B	AC 2
HYD	HYD PUMP 3A	AC 4
HYD	HYD PUMP 3B	AC 1
LDG GEAR	BRAKE CTL CH A	DC 1
LDG GEAR	BRAKE CTL CH B	BATT

B. PART A – Modification – SFCU Strapping (Aircraft, Serial No. 9159 to 9207)

- (1) Obey all the flight-control safety precautions. Refer to TASK 27-00-00-910-801.
- (2) Connect and energize the external ac power. Refer to TASK 24-41-00-861-801.
- (3) Set the slat/flap control lever to SLAT IN/FLAP 0°.
- (4) Set the slat/flap control lever to SLAT OUT/FLAP 30°.
- (5) Set the slat/flap control lever to SLAT IN/FLAP 0°.
- (6) Remove the external the ac power. Refer to TASK 24-41-00-861-802.
- (7) Install the applicable warning placards on the SLAT/FLAP control lever and near the slat and flap control surfaces.
- (8) Remove the external avionics-compartment access panel (140BB). Refer to TASK 52-45-11-000-801.
- (9) Obey all electrical/electronic safety precautions. Refer to TASK 24-00-00-910-801.

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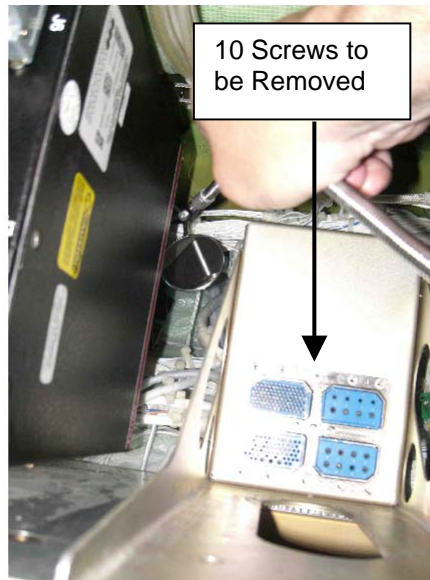
- (10) Set the circuit breakers that follow to LOCKED (refer to TASK 24-00-00-863-801):

SYSTEM NAME	CIRCUIT BREAKER NAME	BUS NAME
FLT CONTROLS	SLAT/FLAP CTLR 1	BATT
FLT CONTROLS	SLAT/FLAP CTLR 2	DC ESS

- (11) Open and tag the circuit breakers that follow:

LOCATION	CB NO.	NAME	ZONE
CCBP	G9	SLAT/FLAP PWR 1	222
CCBP	E2	SLAT/FLAP PWR 2	222

- (12) Remove the floor panels 241FLF and 242FRF. Refer to TASK 53-21-00-000-801.
- (13) Obey all electrostatic discharge safety precautions. Refer to TASK 24-00-00-910-802.
- (14) Do the modification as follows at the SFCU 1 (Refer to Figures 1 and 2 below):
- Remove the SFCU 1. Refer to TASK 27-51-05-000-801.
 - Remove the 10 screws that attach the four-insert connector to the back shells and the SFCU tray.

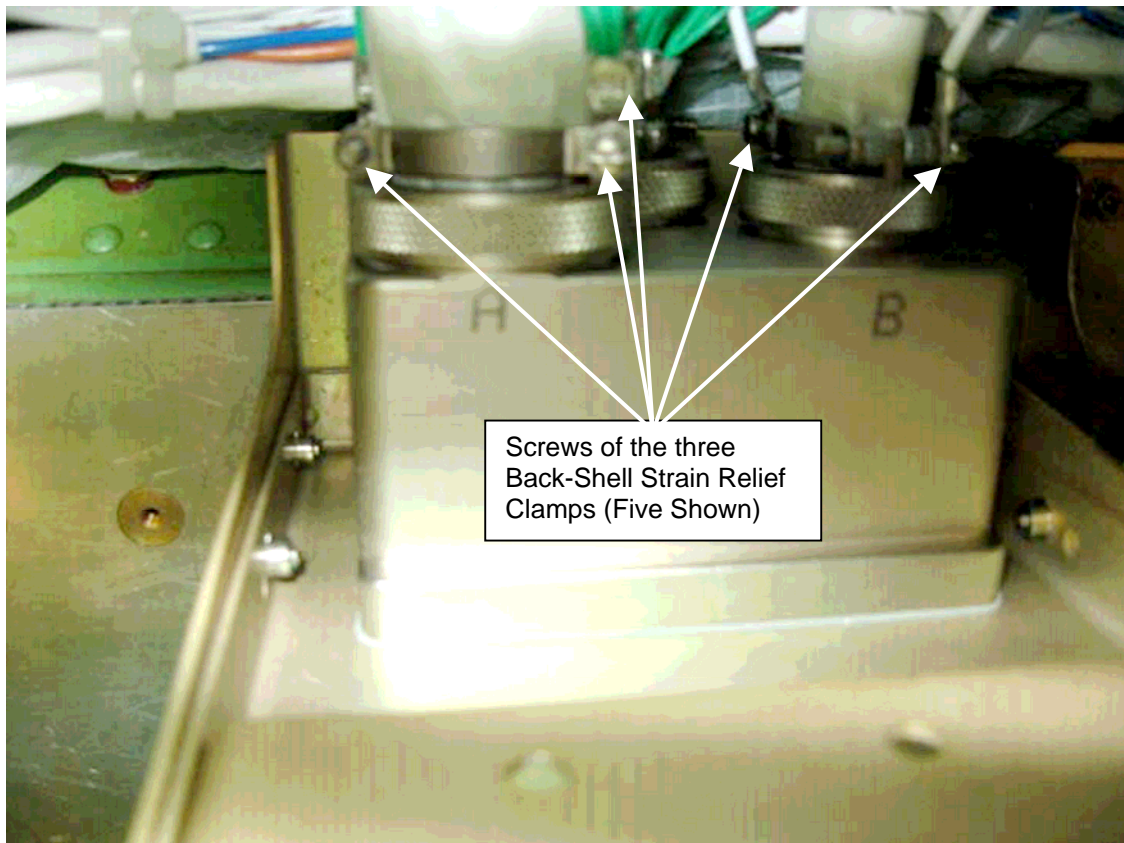


Location of the 10 Screws to be Removed
Figure 1

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- (c) Loosen but do not remove the screws of the three back-shell strain relief clamps located behind the Electro-Magnetic Interference (EMI) back shell.



Location of Screws to be Loosened but not Removed
Figure 2

- (d) Pull the four-insert connector to get access to the wiring.
- (e) Do the wiring modification at the electrical connector A124AP1 as given in kit drawing KGC991-7540.
- (f) Push the four-insert connector back in position and install the 10 screws that attach the assembly to the back shells and tray.
- (g) Tighten the screws of the strain relief clamps of the three back shells.
- (15) Repeat the above step for the SFCU 2 (Refer to Figures 1 and 2 above) and do the wiring modification at the electrical connector A95AP1 as given in the kit drawing KGC991-7540.
- (16) Do a check for electrical continuity on all wiring introduced or disturbed by this Service Bulletin.
- (17) Install the SFCU 1 and 2. Refer to TASK 27-51-05-400-801.

C. PART B – Modification – Replacement of Wheel Speed Transducers (Aircraft, Serial No. 9159 to 9304)

- (1) Obey all the landing gear safety precautions. Refer to TASK 32-00-00-910-801.
- (2) Remove the wheel speed transducers and send them to the address given in Paragraph 1.G. Refer to TASK 32-43-53-000-801.

NOTE: Make sure that you remove the transducers before you do PART C for the applicable aircraft.

- (3) Install the new wheel speed transducers, Part No. GW415-1050-7. Refer to TASK 32-43-53-400-801.

NOTE: You can do this step in conjunction with PART C for the applicable aircraft.

D. PART C – Modification – MLG Tire Replacement (Aircraft, Serial No. 9159 to 9205 Pre SB 700-11-020)

- (1) Obey all the landing gear safety precautions. Refer to TASK 32-00-00-910-801.

- (2) If MLG tires Part No. 382K03-3 are not installed, do as follows:

- (a) Lift the aircraft at the MLG with jacks. Refer to TASK 07-10-05-581-801.
- (b) Remove the MLG wheels and tires. Refer to TASK 32-41-01-000-801.
- (c) Replace the four MLG tires with new Part No. 382K03-3. Refer to the BD-700 CMM – Part One, Chapter 32-48-30 for aircraft equipped with MLG wheel assemblies Part No. GW313-1100-7.
- (d) Install the MLG wheels and tires. Refer to TASK 32-41-01-400-801.
- (e) Lower the aircraft at the MLG and remove the jacks. Refer to TASK 07-10-05-586-801.

- (3) If MLG tires Part No. 382K03-3 are already installed, make sure that the modification placard, Part No. 16275-1 is installed as given in the step that follows. No other action is necessary for this PART C.

- (4) Install the new modification placard, Part No. 16275-1, near the identification placard on the left and right MLG, as follows:

- (a) If necessary, cut the modification placard to fit and write “SB 700-32-027” in the next available space on the placard. Use best shop practices for ink markings or vibro-peen “SB 700-32-27” with an engraving tool.

NOTE: Apply epoxy polyamide, Specification MIL-C-22750, over ink markings or Alodine solution, Specification MIL-C-5541 Class 1A over vibro-peened surfaces.

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- (b) Lightly abrade the paint surface at the location where the placard is to be installed and clean the area with solvent.
- (c) Apply a layer of adhesive at the back of the modification placard after removal of the protective cover and install the placard on the MLG at the location selected. Refer to TASK 20-80-05-400-801.
NOTE: Make sure there are no air bubbles between the placard and the mating surface.
- (d) Apply a bead of sealant around each placard to prevent moisture ingress and let it cure at a temperature of not less than 18.3 °C (65 °F). Refer to TASK 51-23-00-390-805.
- (5) Do the servicing of the MLG tires if they were replaced. Refer to TASK 12-15-00-614-805.

E. Testing

- (1) Set the circuit breakers that follow to IN (refer to TASK 24-00-00-863-802):

SYSTEM NAME	CIRCUIT BREAKER NAME	BUS NAME
HYD	HYD PUMP 2B	AC 2
HYD	HYD PUMP 3A	AC 4
HYD	HYD PUMP 3B	AC 1
LDG GEAR	BRAKE CTL CH A	DC 1
LDG GEAR	BRAKE CTL CH B	BATT

- (2) For aircraft, Serial No. **9159** to **9207**, do as follows:

- (a) Remove the tags and close the circuit breakers that follow:

LOCATION	CB NO.	NAME	ZONE
CCBP	G9	SLAT/FLAP PWR 1	222
CCBP	E2	SLAT/FLAP PWR 2	222

- (b) Make sure that the circuit breakers that follow are closed:

LOCATION	CB NO.	NAME	ZONE
CCBP	F3	TAT HT 1	222
CCBP	F9	TAT HT 2	222

- (c) In the flight compartment, on the center pedestal, make sure that the ENGINE L/R switches are set to EPR.

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- (d) Set the circuit breakers that follow to IN (refer to TASK 24-00-00-863-802):

SYSTEM NAME	CIRCUIT BREAKER NAME	BUS NAME
FLT CONTROLS	SLAT/FLAP CTLR 1	BATT
FLT CONTROLS	SLAT/FLAP CTLR 2	DC ESS

- (e) Connect and energize the external ac power. Refer to TASK 24-41-00-861-801.
- (f) On the center pedestal, set the slat/flap control lever to SLAT OUT/FLAP 0°.
- (g) On the center pedestal, move the two throttles to MAX THRUST.
- (h) On the EICAS primary page, make sure that you do not get the indication that follows:

EICAS MESSAGE	LEVEL (COLOR)
CONFIG SLAT/FLAP	RED

- (i) On the center pedestal, move the two throttles to IDLE.
- (j) On the EICAS primary page, make sure that you do not get the indication that follows:

EICAS MESSAGE	LEVEL (COLOR)
CONFIG SLAT/FLAP	RED

- (k) Repeat the five previous steps two times, the first time with the slat/flap control lever to SLAT OUT/FLAP 6° and the second time with the slat/flap control lever to SLAT OUT/FLAP 16°.
- (l) On the center pedestal, set the slat/flap control lever to SLAT OUT/FLAP 30°.
- (m) On the center pedestal, move the two throttles to MAX THRUST.
- (n) On the EICAS primary page, make sure that you get the indication that follows:

EICAS MESSAGE	LEVEL (COLOR)
CONFIG SLAT/FLAP	RED

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- (o) On the center pedestal, move the two throttles to IDLE.
- (p) On the center pedestal, set the slat/flap control lever to SLAT IN/FLAP 0°.
- (q) On the center pedestal, move the two throttles to MAX THRUST.
- (r) On the EICAS primary page, make sure that you get the indication that follows:

EICAS MESSAGE	LEVEL (COLOR)
CONFIG SLAT/FLAP	RED

- (s) On the center pedestal, move the two throttles to IDLE.
- (t) Do an operational test of the slat/flap control system. Refer to TASK27-51-00-710-801.
- (u) If necessary, open and tag the circuit breakers that follow:

LOCATION	CB NO.	NAME	ZONE
CCBP	F3	TAT HT 1	222
CCBP	F9	TAT HT 2	222

- (3) For aircraft, Serial No. **9159** to **9304**, do the operational test of the brake system. Refer to TASK 32-43-00-710-801.
- (4) Remove the external ac power. Refer to TASK 24-41-00-861-802.

F. Close-out

- (1) Remove all tools, equipment and unwanted materials from the aircraft.
- (2) For aircraft, Serial No. **9159** to **9207**, do as follows:
 - (a) Remove the applicable warning placards from the slat/flap control lever and from the slat and flap control surfaces.
 - (b) Install the external avionics-compartment access panel (140BB). Refer to TASK 52-45-11-400-801.
 - (c) Install the floor panels 241FLF and 242FRF. Refer to TASK 53-21-00-400-801.

G. 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).

3. MATERIAL INFORMATION

A. Kit

Kit 700K27-059 is necessary to do PART C of this Service Bulletin for aircraft pre SB 700-11-020, and contains the part that follows:

NEW PART NO.	QTY	KEY WORD	USED PART NO.	INSTRUCTIONS - DISPOSITION
NAS1611-014	8	Packing, Preformed	NAS1611- 014	Discard
TRC4	4	Valve – Inside	TRC4	Discard
TRRG30	4	Grommet	-	-
39-119	4	Seal, Outer	39-119	Discard
68-1249	4	Seal, Inner	68-1249	Discard
68-1250	4	Packing, Preformed	68-1250	Discard
68-1448	4	Packing, Preformed	68-1448	Discard
16275-1	2	Placard, MLG Modification	-	-
TRVC5 or MS20813-1	4	Cap – Valve	TRVC5	Discard

- NOTES:**
1. In case of discrepancy between this list and the “Service Bulletin Kit Parts List” contained in the respective kit, then the latter list prevails.
 2. The actual quantity for some of the hardware contained in the kit can be greater than the amount shown in the table as these items are supplied in pre-packaged quantities.

B. Part

For aircraft pre SB 700-11-020, the part that follows is necessary to do PART C of this Service Bulletin and can be purchased from Bombardier Aerospace Parts Logistics, Montréal:

ITEM	PART NUMBER	QUANTITY
Tire, MLG	382K03-3	4

NOTE: The part number for the item listed above 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. Part

The part that follows is necessary to do PART A of this Service Bulletin and can be purchased from Bombardier Aerospace Parts Logistics, Montréal:

ITEM	PART NUMBER	QUANTITY
Wire Kit	KGC991-7540-401/01	1

NOTE: The part number for the item listed above 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.

D. Part

The part that follows is necessary to do PART B of this Service Bulletin and can be purchased from Bombardier Aerospace Parts Logistics, Montréal:

ITEM	PART NUMBER	QUANTITY
Wheel Speed Transducer	GW415-1050-7	4

NOTE: The part number for the item listed above 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.

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E. Material

The consumable materials that follow, or equivalent, are necessary to do PART B of this Service Bulletin. These can be purchased from a local supplier. Bombardier Aerospace does not pay for these consumables:

DESCRIPTION	PART No./NAME	SPECIFICATION	QUANTITY	SUPPLIER (See Note)
Silicone Compound or Corrosion Inhibitor or Corrosion Inhibitor	Dow Corning 111 or Mastinox D40 or Cor-Ban 27L	-	As Necessary	Code: D or Code: J or Code: K
Lockwire	CRES, 0.032 in. (0.81 mm)	MS20995C32	As Necessary	Code: L

The consumable materials that follow, or equivalent, are necessary to do PART C of this Service Bulletin on aircraft pre SB 700-11-020. These can be purchased from a local supplier. Bombardier Aerospace does not pay for these consumables:

DESCRIPTION	PART No./NAME	SPECIFICATION	QUANTITY	SUPPLIER (See Note)
Grease, Aircraft Wheel Bearing	Aeroshell Grease 5	-	As Necessary	Code: A
	Or			Or
	Mobilgrease 28 or Mobil Aviation Grease SHC-100			Code: B
Anti-Seize Compound	AMS-2518	MIL-T-5544	As Necessary	Code: C
Silicone Compound Or Petrolatum	DC 4 or DC 55-M	MIL-S-8660	As Necessary	Code: D
	Or Vaseline	Or VV-P-236		Or Code: L

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DESCRIPTION	PART No./NAME	SPECIFICATION	QUANTITY	SUPPLIER (See Note)
Coating, Chemical Conversion	Alodine 1200S	MIL-C-5541, Class 1A	As Necessary	Code: E
Coating, Epoxy Polyamide	-	MIL-C-22750, Color: Clear	As Necessary	Code: F
Isopropyl Alcohol	-	-	As Necessary	Code: L
Solvent	DS-108	-	As Necessary	Code: H
Compound, Sealing CT: 30 hours	Pro-Seal 870 B½	MIL-PRF-81733, Type II	As Necessary	Code: G
Adhesive, Acrylic CT: 24 hours	Weld-On 28	MIL-A-8576, Type II	As Necessary	Code: I

- NOTES:**
1. Refer to the next table for each supplier's address listed by codes.
 2. The Curing Time (CT), if applicable, for each consumable material is indicated with the description of each product.
 3. At time of release of 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	
<p>Code: A Shell Oil Co. One Shell Plaza 910 Louisiana St. Houston, TX, 77002-4916 U.S.A. Tel.: (713) 230-4385 Tel.: (713) 277-7000 Website: http://www.Shell.com</p>	<p>Code: B Exxon Mobil Corp. 3225 Gallows Rd Fairfax, VA, 22037-0001 U.S.A. Tel.: 1-800-662-4525 Website: http://www.exxonmobil.com</p>

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SUPPLIERS ADDRESSES BY CODES	
<p>Code: C Anderol Inc. 215 Merry Lane East Hanover, NJ, 07936 U.S.A. Tel.: (973) 887-7410 E-mail: info@anderol.com</p>	<p>Code: D Dow Corning Corp. 2200 W. Salzburg Rd. Midland, MI, 48686-0994 U.S.A. Tel.: 1-800-2482481 Website: http://www.dowcorning.com</p>
<p>Code: E Henkel Surface Technologies 32100 Stephenson Highway Madison Heights, MI 48071 U.S.A. Tel.: (248) 583-9300 Website: http://www.loctiteaero.com</p>	<p>Code: F Tempo Aerospace Inc. 205 Fenmar Drive Toronto, Ontario, M9L 2X4 Canada Tel.: (416) 746-2233 Website: http://www.tempoaerospace.com</p>
<p>Code: G PRC® Aerospace Sealants PRC-DeSoto International Inc. 5454 San Fernando Road PO Box 1800 Glendale, CA, 91209 U.S.A. Tel.: (818) 240-2060 Website: http://www.ppg.com/prc-desoto</p>	<p>Code: H Dynamold Solvents Inc. 2905 Shamrock Ave. Fort Worth, TX, 76107 U.S.A. Tel.: (817) 335-0862 Website: http://www.dynamold.com</p>
<p>Code: I IPS Corporation 17109 South Main St P.O. Box 379 Gardena, CA 90248 U.S.A. Tel.: (310) 898-3300 Website: http://www.ipscorp.com</p>	<p>Code: J PRC® Aerospace Sealants PRC-DeSoto Europe Ltd. Darlington Road, Shildon County Durham DL4 2QP England Tel.: +44 (0) 1388 772541 E-mail: info.europe@prc-desoto.com</p>

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SUPPLIERS ADDRESSES BY CODES	
<p>Code: K Zip Chem Products 400 Jarvis Drive Morgan Hill, CA, 95037 U.S.A. Tel.: 408-782-2335 Email: 4info@zipchem.com</p>	<p>Code: L Commercially Available</p>

F. Publications

The publication that follows is required after this Service bulletin has been incorporated.

Airplane Flight Manual (AFM), CSP 700-1A, Revision 57



WIRING DIAGRAM GC588-0060, SLAT/FLAP SYSTEM CONTROL (LHS)



WIRING DIAGRAM GC588-0061, SLAT/FLAP SYSTEM CONTROL (RHS)

- EFFECTIVITY OF TABLE 1 & 2 AS PER SALES MATRIX
- INSTALLATION OF AIRCRAFT WIRING AS PER MPS145-3.
- IDENTIFICATION OF WIRES AS PER MPS145-5.
- RETERMINATE WIRES AND ADD NEW SPLICE SP2400 (ITEM#3):

FROM	WIRE CODE	IS TO	END TERMINATION	WAS TO	EFFECTIVITY
AI24API-56	FAGJ113-22	AI24API-17	030-1975-007	AI24API-55	-401
A95API-56	FBHJ100-22	SP2400-1	M81824/1-2	A95API-69	-401

5. ADD WIRES AS FOLLOWS:

END TERMINATION	FROM	WIRE CODE	TO	END TERMINATION	EFFECTIVITY
M81824/1-2	SP2400-1	FBHJ166-22	A95API-55	030-1975-007	-401
M81824/1-2	SP2400-2	FBHJ167-22	A95API-69	030-1975-007	-401
M81824/1-2	SP2400-2	FBHJ168-22	A95API-17	030-1975-007	-401

6. -401 ASSY IS COMMON TO BOTH GX AND G5000.

REVISIONS				APPROVED	
ZONE	REV	DESCRIPTION	DISPN/DATE	DESIGN	STRESS
NC		SEE EDRN			
A		SEE EDRN			

0.0071
Z7001900127B
EFFECTIVITY
22-02-05
SEE EDRN

QUANTITY REQUIRED PER	FIND NO.	ZONE	CAGE CODE	PART NO.	DESCRIPTION
	A/R	4	71867	B0801150-22-9	CABLE #22
	I	3	81349	M81824/1-2	SPLICE #16-20
	4	2	71468	030-1975-007	CONTACT, PIN
		I		-401	KIT

BILL OF MATERIAL		PARTS LIST	
401	NC A	DASH NO.	REVISION
2	I PL	LIST OF ACTIVE SHEETS	
SEE EDRN FOR PARTS LIST AND NOTES		SEE EDRN FOR DRAWING FILE NAME, APPROVALS AND REVISIONS	
401	GC589-0001	I	BD700
DASH NO.	NEXT ASSY	QTY PER ACFT	MODEL
88308	D	88308	D
CAGE CODE		CAGE CODE	
88308		88308	
SCALE		SHEET	
		I	

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SOLE AUTHORITY FILE USED:
WIR.KGC9917540.A.1
DATE: 22-02-05
STATUS - RL



THIS IS A CAD DRAWING

F.8944-3 REV 89/10 /MOD

4

3

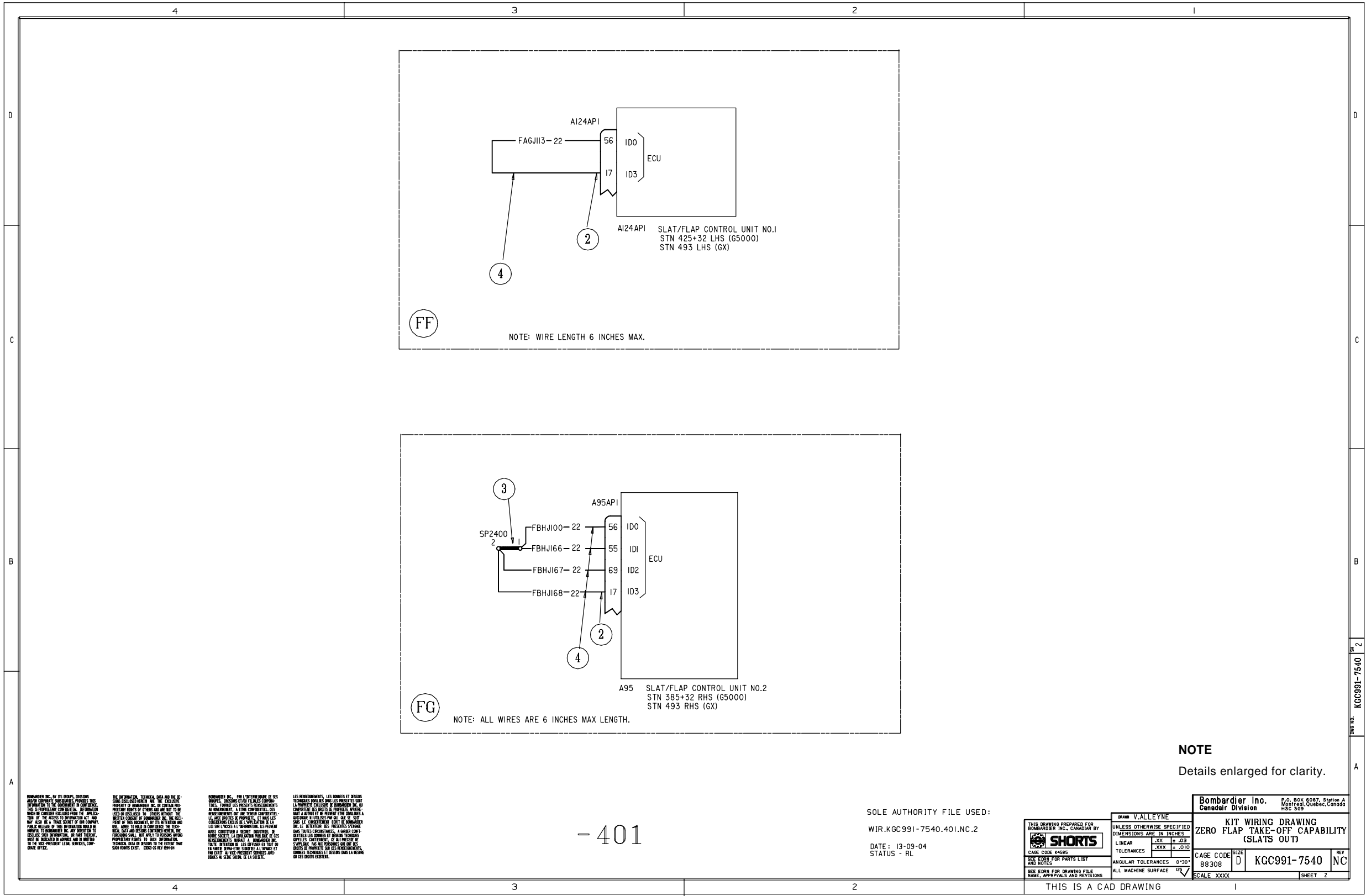
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KGC991-7540 – Kit Drawing – Zero Flap Take-Off Capability (Slats Out)
(Sheet 1 of 2, Rev. A)

Basic Issue: Aug 25/2008

700-27-059
Page 22 of 23

SB700-27-054-7540-A-S1



NOTE
Details enlarged for clarity.

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SOLE AUTHORITY FILE USED:
WIR.KGC991-7540.401.NC.2
DATE: 13-09-04
STATUS - RL

THIS DRAWING PREPARED FOR BOMBARDIER INC., CANADIAN BY SHORTS		DRAWN: V. ALLEYNE	
SEE ECRN FOR PARTS LIST AND NOTES		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
SEE ECRN FOR DRAWING FILE NAME, APPROVALS AND REVISIONS		LINEAR .XX ± .03 TOLERANCES .XXX ± .010	
THIS IS A CAD DRAWING		ANGULAR TOLERANCES 0°30' ALL MACHINE SURFACE 12.5	
SCALE XXXX		CAGE CODE 88308	
SHEET 2		KIT WIRING DRAWING ZERO FLAP TAKE-OFF CAPABILITY (SLATS OUT)	
PART NO. KGC991-7540		REV NC	

SB700-27-054-7540-A-S2

KGC991-7540 – Kit Drawing – Zero Flap Take-Off Capability (Slats Out)
(Sheet 2 of 2, Rev. A)

Basic Issue: Aug 25/2008

700-27-059
Page 23 of 23

SERVICE BULLETIN EVALUATION FORM

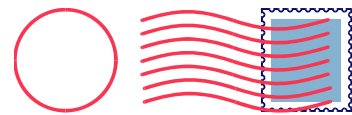
(Your ideas will help us provide better bulletins)

SERVICE BULLETIN <u>700-27-059</u>	ISSUE: <u>Basic</u>	DATED: <u>Aug 25/2008</u>
TITLE: Modification – Control and Indicating Systems – Modifications to Permit Zero-Flap Take-Off Capability With Full Performance		

	STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE
<ul style="list-style-type: none"> • Instructions to do the 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 the 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 Service Bulletin. Comments: 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<i>For administrative use only</i>	PLEASE SUPPLY US WITH THE FOLLOWING DATA AND FAX TO: (514) 855-7634 or E-MAIL TO: MTL_BBAD_SB_EVALUATION@AERO.BOMBARDIER.COM	
0522AT	OPERATOR:	
	AIRCRAFT SERIAL NO.:	
	TELEPHONE:	
	FACSIMILE:	
	NAME: (Please print)	

THANK YOU FOR YOUR RESPONSE!
 PLEASE RETURN THIS COMPLETED EVALUATION FORM BY MAIL, E-MAIL OR FAX



Bombardier Business Aircraft Customer Services (BBACS)

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

Attention: Customer Support Department

SERVICE BULLETIN INCORPORATION SHEET – “700-27-059”

Upon completion of the Service Bulletin, please fill in this form and either fold and mail in the envelope provided, 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.

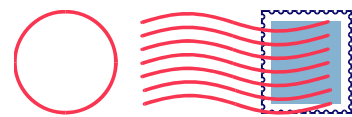
Service Bulletin Number	Rev.	* Parts Completed	Further Action Required	
			YES	NO
700-27-059	Basic	PART A	<input type="checkbox"/>	<input type="checkbox"/>
“	“	PART B	<input type="checkbox"/>	<input type="checkbox"/>
“	“	PART C	<input type="checkbox"/>	<input type="checkbox"/>

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

* **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.

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	_____		
PRINT NAME	_____	DATE:	_____
SIGNATURE:	_____		



Bombardier Business Aircraft Customer Services (BBACS)

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

Attention: Customer Support Department, Maintenance Engineering
