

ALERT SERVICE BULLETIN
Bell Helicopter **TEXTRON**

A Subsidiary of Textron Inc.

NO. 205-07-94

DATE June 11, 2007

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DATE
REV

MODEL AFFECTED: 205A & 205A1

SUBJECT: STARTER/GENERATOR POWER CABLE,
UPGRADE.

HELICOPTERS AFFECTED: Model 205A & 205A1 helicopters serial number
30001 through 30332.

COMPLIANCE: 1 year from release date of this bulletin.

DESCRIPTION:

Bell Helicopter has been made aware of a possibility of fire hazard caused by the starter/generator power cable shorting out at connector P81 (J81) pins. This ASB addresses this issue by replacing the affected cable assemblies.

APPROVAL:

The engineering design aspects of this bulletin are FAA/DER approved.

MANPOWER:

Approximately 10.0 man-hours are required to complete this bulletin. Man-hours are based on hands-on time, and may vary with personnel and facilities available.

WARRANTY:

Owners / Operators of Bell 205A-205A1 Helicopters who comply with the instructions in this Bulletin will be eligible to receive a 100% credit for the replacement parts Kit CT205-07-94-1 outlined under the required material section.

To receive this credit:

- Purchase the required kit CT205-07-94-1 from a BHT supply source.
- Comply with the instructions contained in this Bulletin no later than the applicable hours or date listed in the “compliance section” of this ASB.
- Submit an MMIR to the Bell Warranty Department for the replacement parts.

-NOTE-

Customers who fail to comply with the instructions in this Bulletin after one year from date of release of this Bulletin are not eligible for the special warranty credit provisions listed above. No labor cost will be covered under this bulletin.

MATERIAL:

Required Material:

The following material is required for the accomplishment of this bulletin and may be obtained through your Bell Helicopter Textron Supply Center.

<u>Part Number</u>	<u>Nomenclature</u>	<u>Quantity</u>
CT205-07-94-1	Starter/generator cable kit	1

Note: The Starter/generator cable kit consists of the following parts:

205-075-265-103	Cable Assembly	1
205-075-265-105S	Cable Assembly	1
MS27212-5-2	Terminal Board	1
MS18029-5S2	Cover	1
MS3373-A3	Insulating strip	1
MS3373-C3	Insulating strip	1
31-034-1-150	Tape	1
80-011-P7F0-0	Plug	3
80-011-S7D08-0	Sleeve	3

Consumable Material:

The following material is required to accomplish this bulletin, but may not require ordering, depending on the operator's consumable material stock levels. This material may be obtained through your Bell Helicopter Textron Supply Center.

<u>Part Number</u>	<u>Nomenclature</u>	<u>Quantity</u>	<u>Reference</u>
299-947-100, type II, class 2	Adhesive	A/R	C-317
MIL-S-81733 type 2	Sealant	A/R	C-251

SPECIAL TOOLS:

None required

ELECTRICAL LOAD DATA:

Not affected

REFERENCES:

BHT-205-IPB Illustrated Parts Breakdown
 BHT-205-MM Maintenance Manual
 BHT-MED-SRM-1 Structural Repair Manual

PUBLICATIONS AFFECTED:

BHT-205-IPB Illustrated Parts Breakdown
 BHT-205-MM Maintenance Manual

ACCOMPLISHMENT INSTRUCTIONS:

- 1) Prepare helicopter for maintenance.
- 2) Remove and discard cable assembly 205-075-902-017 using following steps:
 - a) Gain access to connector P81 located on the left hand side engine deck.
 - b) Disconnect connector P81 from J81 and disconnect wires at starter/generator connection E, B, and C. Retain hardware for re-installation.
- 3) Remove and discard cable assembly 205-075-911-007 using following steps:
 - a) Gain access to connector J81 located underneath the left hand side engine deck.
 - b) Remove connector J81 from lower engine deck panel. Retain attaching hardware for re-installation.

- 4) Remove wires as per table 1. Retain hardware for re-installation.
- 5) Install plugs and sleeves as follow:
 - a) Locate qty 3 holes in accordance with figure 1.
 - b) Drill qty 3 holes 0.296 to 0.289 inch through panel assembly as shown on figure 1.
 - c) Install qty 3 sleeves P/N 80-011-S7D08-0 far side and plug P/N 80-011-P7F0-0 using adhesive C-317 as detailed in structural repair manual.
 - d) Allow adhesive to cure.
- 6) Install terminal board P/N MS27212-5-2, TB-150, on inboard side of main beam at STA 205.10 using qty 3 screws MS35206-233, qty 3 washers AN960PD6L, and qty 3 nuts NAS679A06.
- 7) Install identification tape P/N 31-034-1-150 beside terminal board and apply sealant C-251 over tape.
- 8) Install cable assembly P/N 205-075-265-105 connector J81 on lower side of engine deck using retained hardware.

-NOTE-

Refer to figure 2 for the following steps.

- 9) Connect wire P73B1N to ground pad using retained hardware.
- 10) Connect wire P95B1 to K57 (starter relay) pin A2 using retained hardware.
- 11) Connect wire P72B1 and P72C1 to TB 150, pin B using strip P/N MS3373-A3, strip P/N MS3373-C3, qty 2 washer P/N AN960D616L and nut P/N MS21042L6.
- 12) Install cover assembly P/N MS18029-5S-2 on TB 150.
- 13) Connect the other end of wire P72C1 to R1 (Generator Shunt) on the + side as follows:
 - a) Route wire P72C1 through structure.
 - b) Cut wire P72C1 and install terminal P/N MS25036-130 using appropriate crimper.

- c) Connect wire P72C1 to R1 (generator Shunt) on + side using retained hardware.

14) Install cable assembly P/N 205-075-265-103 as follows:

- a) Connect P81 to J81 and safety with lockwire.
- b) Connect wire P73A1 to G6 (starter generator) pin E using retained hardware.
- c) Connect wire P72A1 to G6, pin B using retained hardware.
- d) Connect wire P95A1 to G6, pin C using retained hardware.

12. Perform continuity check using multimeter as follow:

- a. Check continuity between G6 pin E and ground. Reading should be approximately 0 ohms.
- b. Check continuity between G6 pin B and R1, + side (generator shunt). Reading should be approximately 0 ohms.
- c. Check continuity between G6 pin C and K57 pin A2 (starter relay). Reading should be approximately 0 ohms.

13. Make helicopter safe for flight.

14. Make an entry in helicopter historical record indicating compliance with this Alert Service Bulletin.

Wire number	From connection	Pin
K5B0N	GROUND PAD	N/A
K5D4N	GROUND PAD	N/A
P37D4	GENERATOR SHUNT R1	+ SIDE
P37B0	GENERATOR SHUNT R1	+ SIDE
K6C4	STARTER RELAY AFT K57	A2
K6A4	STARTER RELAY AFT K57	A2

Table 1

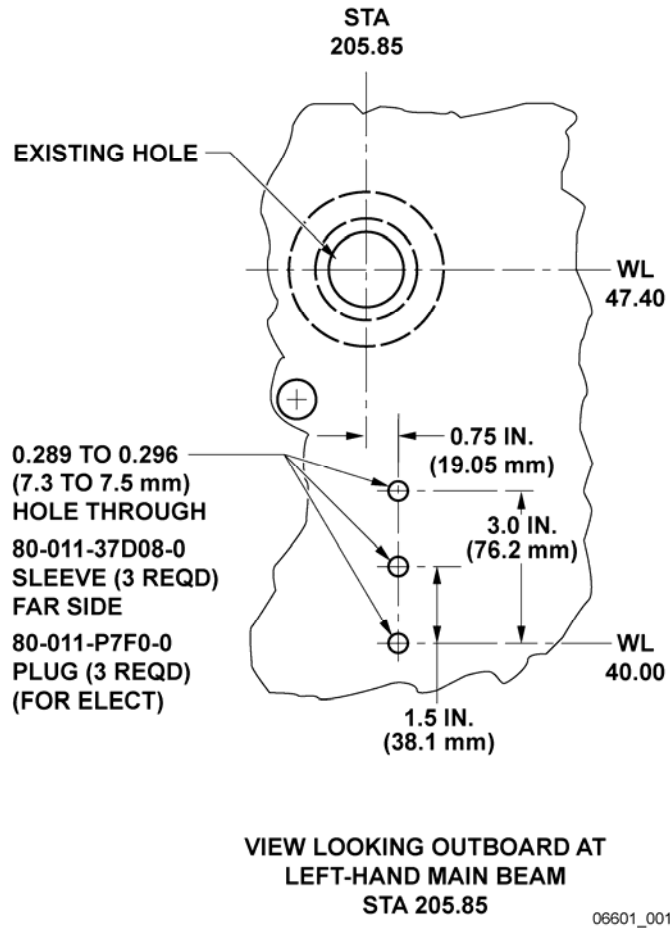


Figure 1

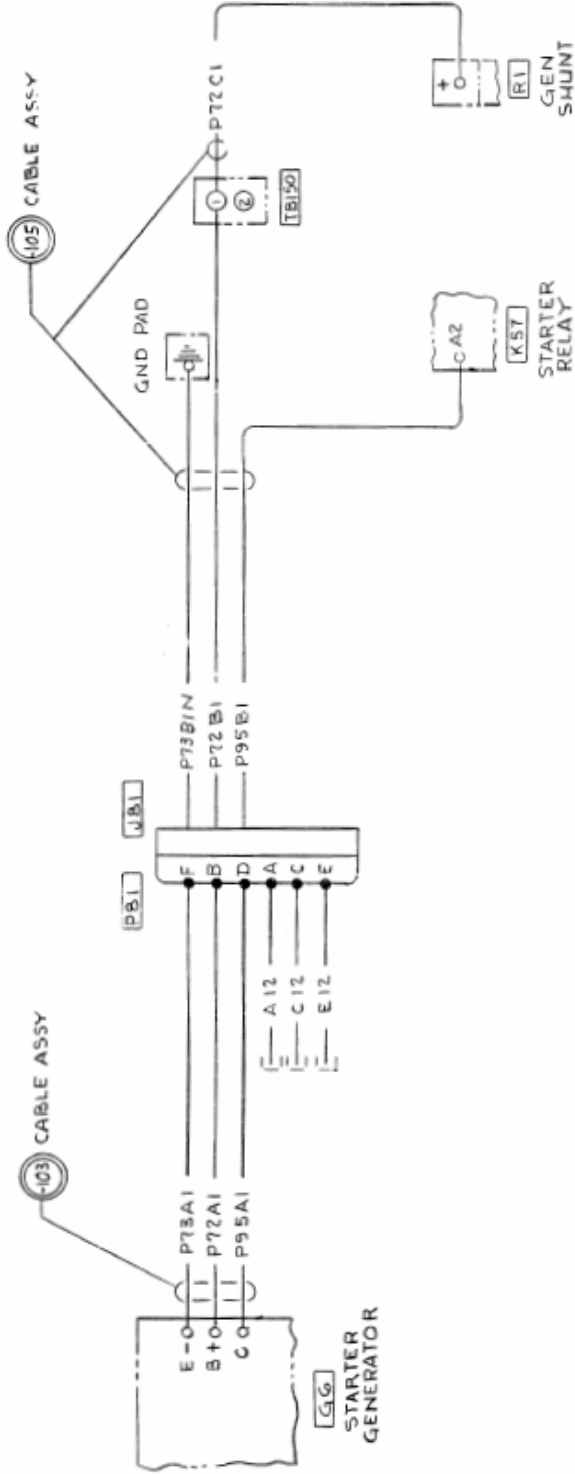


Figure 2