



EMB145 – EMB135

AIRCRAFT
MAINTENANCE MANUAL

NOSE-LANDING-GEAR DOOR ASSEMBLY - ADJUSTMENT/TEST

EFFECTIVITY: JAA CERTIFIED AIRCRAFT

1. General

- A. This section gives the procedures to do the operational check of the Nose-Landing-Gear Door-Open indication.
- B. The procedures in this section are given in the sequence below. The tasks identified with (♦) are part of the Scheduled Maintenance Requirements Document (SMRD).

TASK NUMBER	DESCRIPTION	EFFECTIVITY
32-20-05-700-801-A	NOSE-LANDING-GEAR DOOR-OPEN INDICATION - OPERATIONAL CHECK	JAA CERTIFIED AIRCRAFT



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TASK 32-20-05-700-801-A

EFFECTIVITY: JAA CERTIFIED AIRCRAFT

2. NOSE-LANDING-GEAR DOOR-OPEN INDICATION - OPERATIONAL CHECK

A. General

- (1) This task gives the procedures to do the operational check of the Nose-Landing-Gear Door-Open indication.

B. References

REFERENCE	DESIGNATION
AMM TASK 20-40-01-860-801-A/200	ENERGIZATION OF THE AIRCRAFT WITH AN EXTERNAL POWER SOURCE
AMM TASK 29-10-00-860-802-A/200	HYDRAULIC SYSTEM - PRESSURIZATION WITH EMDP
AMM TASK 32-00-01-910-801-A/200	LG SAFETY PIN - INSTALLATION AND REMOVAL
AMM TASK 32-00-02-910-801-A/200	SAFETY PIN OF THE NLG DOORS SOLENOID VALVE - INSTALLATION AND REMOVAL
AMM TASK 32-63-04-400-801-A/400	NLG DOOR-OPEN PROXIMITY SWITCH - INSTALLATION
AMM TASK 32-63-05-700-801-A/500	PROXIMITY SWITCH (SENSOR) - FUNCTIONAL CHECK
S.B.145-22-0004	-
S.B.145-32-0036	-
S.B.145-32-0073	-
SB145-32-0036	-

C. Zones and Accesses

Not Applicable

D. Tools and Equipment

Not Applicable

E. Auxiliary Items

Not Applicable

F. Consumable Materials

Not Applicable

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Cockpit
1	Helps the other technician	RH and LH Nose landing gear doors

I. Preparation
SUBTASK 841-002-A

- (1) On aircraft PRE-MOD [SB145-32-0036](#), make sure that the pressure in hydraulic system No. 1 is totally released ([AMM TASK 29-10-00-860-802-A/200](#)).
- (2) On aircraft POST-MOD [SB145-32-0036](#), install the safety pin of the NLG door solenoid valve ([AMM TASK 32-00-02-910-801-A/200](#)).
- (3) Make sure that the landing gear safety pins are installed ([AMM TASK 32-00-01-910-801-A/200](#)).
- (4) Make sure that the door-open proximity switches are correctly installed ([AMM TASK 32-63-04-400-801-A/400](#)).
- (5) On the circuit breaker panel, make sure that the LG CMD and DOOR CMD circuit breakers are open. Refer to Figure 501, sheet 1.
- (6) On the circuit breaker panel, make sure that the IND 1 and IND 2 circuit breakers are closed. Refer to Figure 501, sheet 1.
- (7) On the circuit breaker panel, make sure that the AIR/GND A, B, C, D circuit breakers are open. Refer to Figure 501, sheet 1.
- (8) Energize the aircraft with an external DC power supply ([AMM TASK 20-40-01-860-801-A/200](#)).
- (9) Make sure that all the landing gear indications on the EICAS are green (DN). Refer to Figure 501, sheet 1.
- (10) On the RMU, select the ENGINE-PAGE 2 page and make sure that the LG DN LOCKED message comes into view. Refer to Figure 501, sheet 1.
- (11) (For aircraft PRE-MOD [S.B.145-22-0004](#)) Push the nose-landing-gear door indicator, on the glareshield panel, and make sure that the indicator lights come on (lamp test). Refer to Figure 501, sheet 1.

J. Operational Check of the Nose-Landing-Gear Door-Open Indication ([Figure 501](#))
SUBTASK 710-002-A

- (1) Do a check of the nose-landing-gear door-open indication.

NOTE: When necessary or to find a proximity switch failure, do the special proximity switch test ([AMM TASK 32-63-05-700-801-A/500](#)).

- (a) Push the DN LOCK REL button and, at the same time, set the landing gear control lever to the UP position.
Result:
1 Make sure that the color of the landing gear indicators, on the EICAS, changes to amber and after a few seconds, the same indicators, on the EICAS, change to red and the message LG LEVER DISAGREE comes into view on the EICAS.
- (b) Disconnect connectors P0039 and P0040 from the NOSE DOWN LOCK proximity sensors. Refer to Figure 501, sheet 2.

Result:

- 1 Make sure that the nose-landing-gear indicator changes to the in-transit indication (red) and the message LG DN LOCKED goes out of view on the RMU.
- (c) Push the hook of the nose landing gear UP LOCK box to simulate gear up and locked.

Result:

- 1 Make sure that the nose-landing-gear indicator shows in-transit indication (red).
- 2 (For aircraft PRE-MOD [S.B.145-22-0004](#)) Make sure that the NLG UP - DOOR OPN indicator, on the glareshield, comes on.

(For aircraft POST-MOD [S.B.145-22-0004](#)) Make sure that the EICAS display show the "NLG UP/DOOR OPN" message.

- (d) Put a metallic target in front of the left door sensor. Refer to Figure 501, sheet 3.

Result:

- 1 (For aircraft PRE-MOD [S.B.145-22-0004](#)) Make sure that the nose-landing-gear indicator shows in-transit condition (red) and that the glareshield indicator is on.

(For aircraft POST-MOD [S.B.145-22-0004](#)) Make sure that the nose-landing-gear indicator shows in-transit condition (red) and that the EICAS display show the "NLG UP/DOOR OPN" message.

- (e) Put a metallic target in front of the right door sensor. Refer to Figure 501, sheet 3.

Result:

- 1 (For aircraft PRE-MOD [S.B.145-22-0004](#)) Make sure that the nose-landing-gear indicator shows UP (white) and that the glareshield indicator goes off.

(For aircraft POST-MOD [S.B.145-22-0004](#)) Make sure that the nose-landing-gear indicator shows UP (white) and on the EICAS display, the message "NLG UP/DOOR OPN" go out of view.

- (f) Remove the metallic target from the left door sensor.

Result:

- 1 (For aircraft PRE-MOD [S.B.145-22-0004](#)) Make sure that the nose-landing-gear indicator shows in-transit (red) condition and that the glareshield indicator comes on.

(For aircraft POST-MOD [S.B.145-22-0004](#)) Make sure that the nose-landing-gear indicator shows in-transit (red) condition and the EICAS display show the "NLG UP/DOOR OPN" message.

- (g) Put the metallic target again in front of the left door sensor.

Result:

- 1 (For aircraft PRE-MOD [S.B.145-22-0004](#)) Make sure that the nose-landing-gear indicator shows UP (white) and the glareshield indicator goes off.

(For aircraft POST-MOD [S.B.145-22-0004](#)) Make sure that the nose-landing-gear indicator shows UP (white) and on the EICAS display, the message "NLG UP/DOOR OPN" go out of view.

- (h) Set the landing gear selector lever to the DOWN position.

Result:

- 1 Make sure that the nose-landing-gear indicator shows UP (red).
 - (i) Remove the metallic targets from the door sensors.
- Result:
- 1 (For aircraft PRE-MOD [S.B.145-22-0004](#)) Make sure that the nose-landing-gear indicator shows in-transit (red) condition and the glareshield indicator comes on.
 - (For aircraft POST-MOD [S.B.145-22-0004](#)) Make sure that the nose-landing-gear indicator shows in-transit (red) condition and the EICAS display show the "NLG UP/DOOR OPN" message.
 - (j) Use the free-fall lever to put the uplock hook at the unlocked position.
- Result:
- 1 Make sure that the nose-landing-gear door indicator remains in-transit (red) condition.
 - (k) Connect again the connectors disconnected at action (b).
- Result:
- 1 Make sure that the nose-landing-gear door indicator shows DN (green) and the message LG DN LOCKED, on the RMU, comes into view.
 - 2 On the EICAS display, the messages "LG/LEVER DISAGREE" goes out of view
 - (l) Push the DN LOCK REL button and, at the same time, set the landing gear control lever to the UP position.
 - (m) Do actions (c), (d), (e), (f) and (g).
 - (n) Remove the metallic targets from the door sensors.
 - (o) Remove the connectors from the nose-landing-gear door sensors. Refer to Figure 501, sheet 3.
 - (p) Put a jumper between pins B and C on the two connectors.
- Result:
- 1 (For aircraft PRE-MOD [S.B.145-22-0004](#)) Make sure that the nose-landing-gear indicator shows UP (white) and the nose-landing-gear door indicator, on the glareshield, goes off.
 - (For aircraft POST-MOD [S.B.145-22-0004](#)) Make sure that the nose-landing-gear indicator shows UP (white) and on the EICAS display, the message "NLG UP/DOOR OPN" go out of view.
 - (q) On the circuit breaker panel, open the IND 1 circuit breaker.
- Result:
- 1 (For aircraft PRE-MOD [S.B.145-32-0073](#)) Make sure that the nose-landing-gear indicator shows UP (white) and the nose-landing-gear door indicator, on the glareshield, is off.
 - (For aircraft POST-MOD [S.B.145-32-0073](#)) Make sure that the three landing gear indicators shows in-transit (red) and the EICAS display show the "NLG UP/DOOR OPN" message.



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- (r) On the circuit breaker panel, open the IND 2 circuit breaker and, at the same time, close the LDG GEAR IND 1 and LDG GEAR IND 2 circuit breakers. Then open the IND 2 circuit breaker.

Result:

- 1 (For aircraft PRE-MOD [S.B.145-32-0073](#)) Make sure that the nose-landing-gear indicator shows UP (white) and the nose-landing-gear door indicator, on the glareshield, is off.

(For aircraft POST-MOD [S.B.145-32-0073](#)) Make sure that the nose-landing-gear indicator shows UP (white) and on the EICAS display, the message "NLG UP/DOOR OPN" go out of view.

K. Follow-on

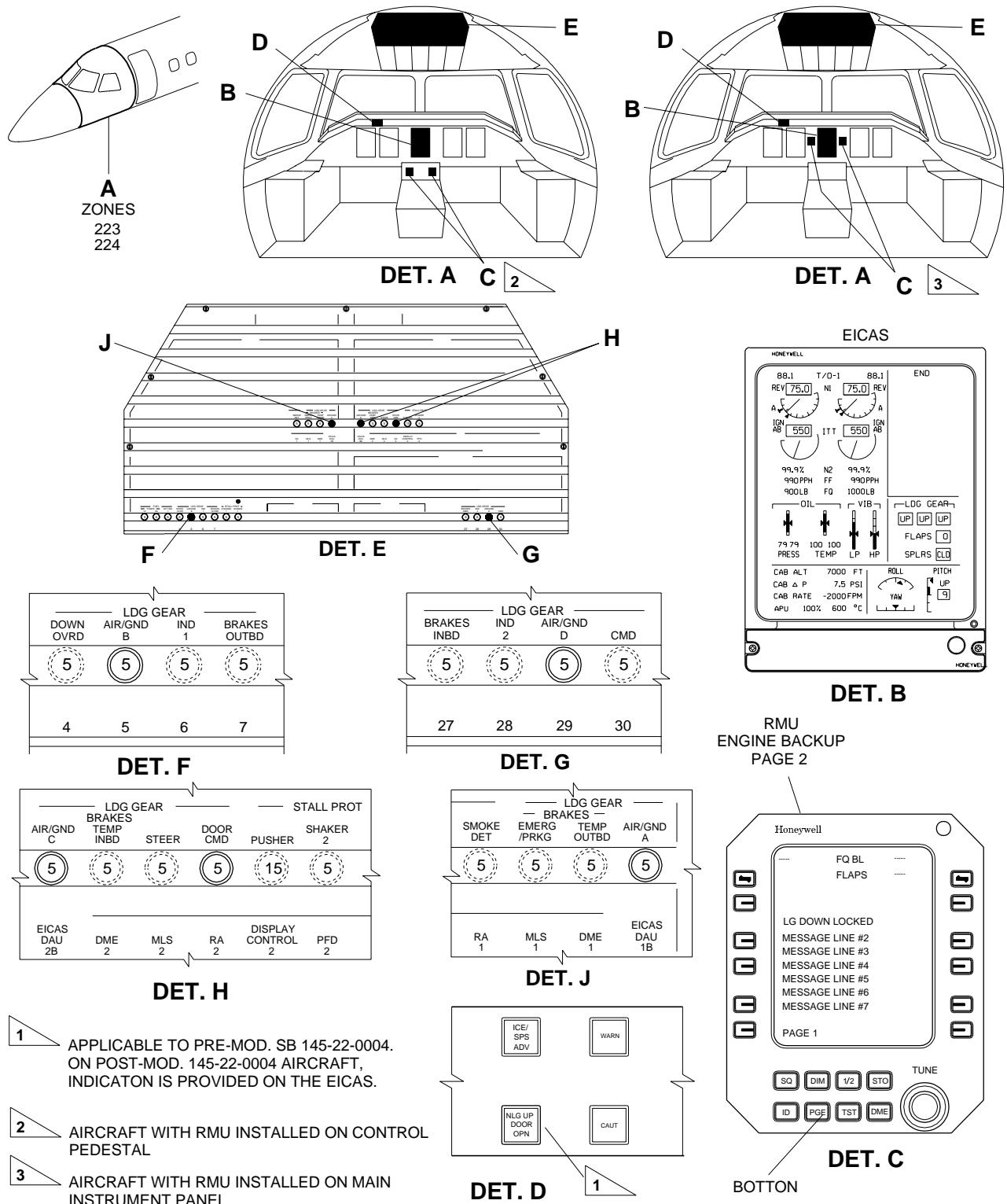
SUBTASK 842-002-A

- (1) On the circuit breaker panel, close the IND 2 circuit breaker.
- (2) Remove the jumper from between pins B and C of the two connectors.
- (3) Connect the connectors from the NLG door sensor. Refer to Figure 501, sheet 3.
- (4) Set the landing gear selector lever to the DOWN position.
- (5) Use the free-fall lever to put the uplock hook at the unlocked position.
- (6) On aircraft POST-MOD [S.B.145-32-0036](#), remove the safety pin from the NLG door solenoid valve ([AMM TASK 32-00-02-910-801-A/200](#)).
- (7) Deenergize the aircraft.

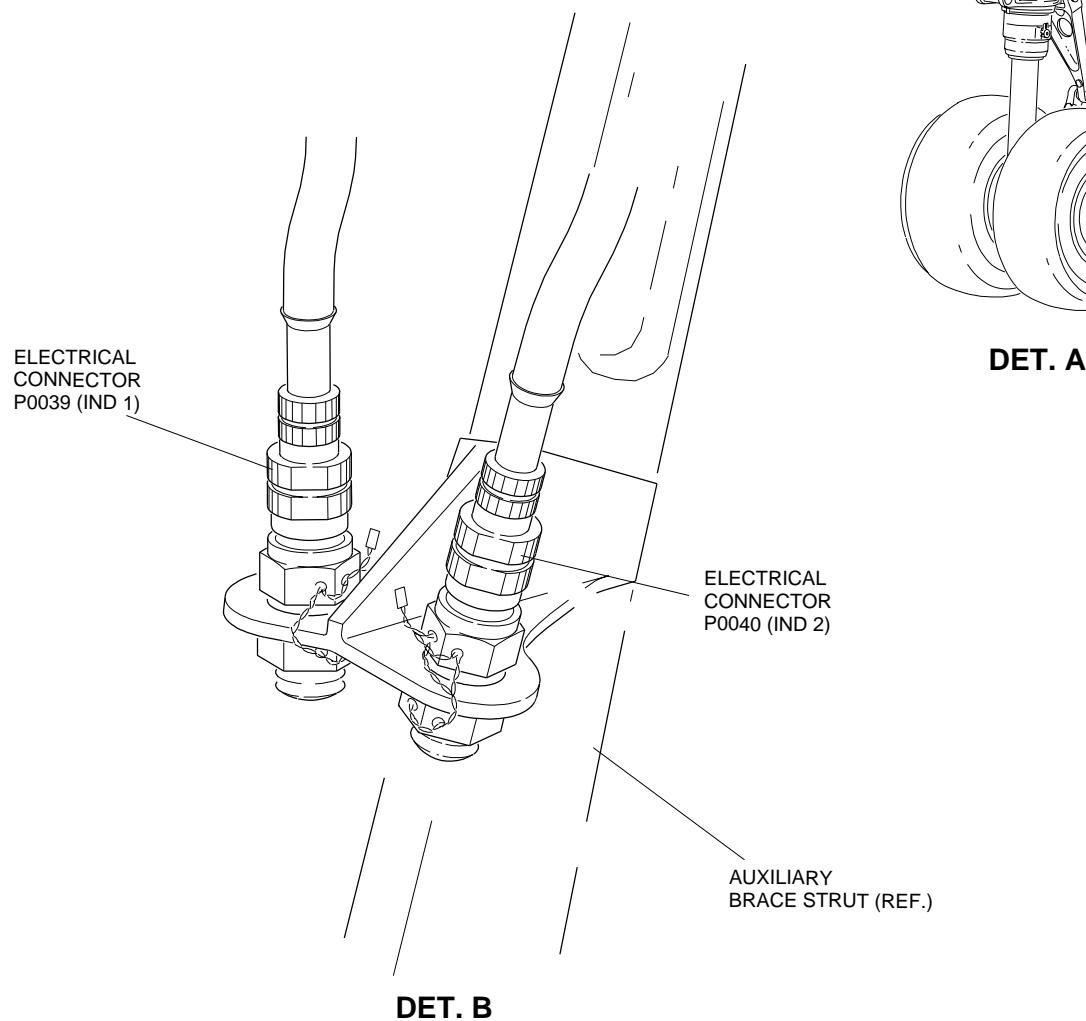
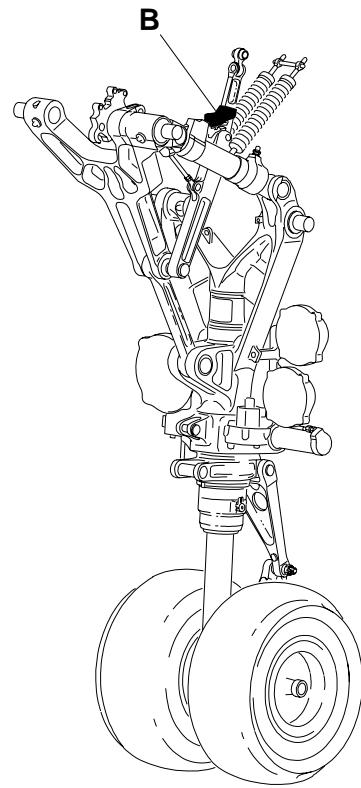
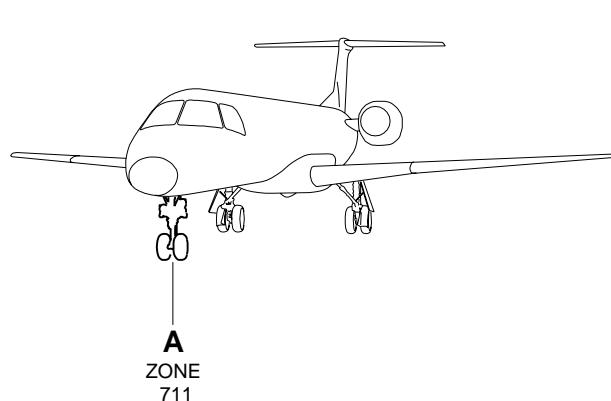


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EFFECTIVITY: JAA CERTIFIED AIRCRAFT
Nose-Landing-Gear Door-Open Indication - Operational Test
 Figure 501 - Sheet 1

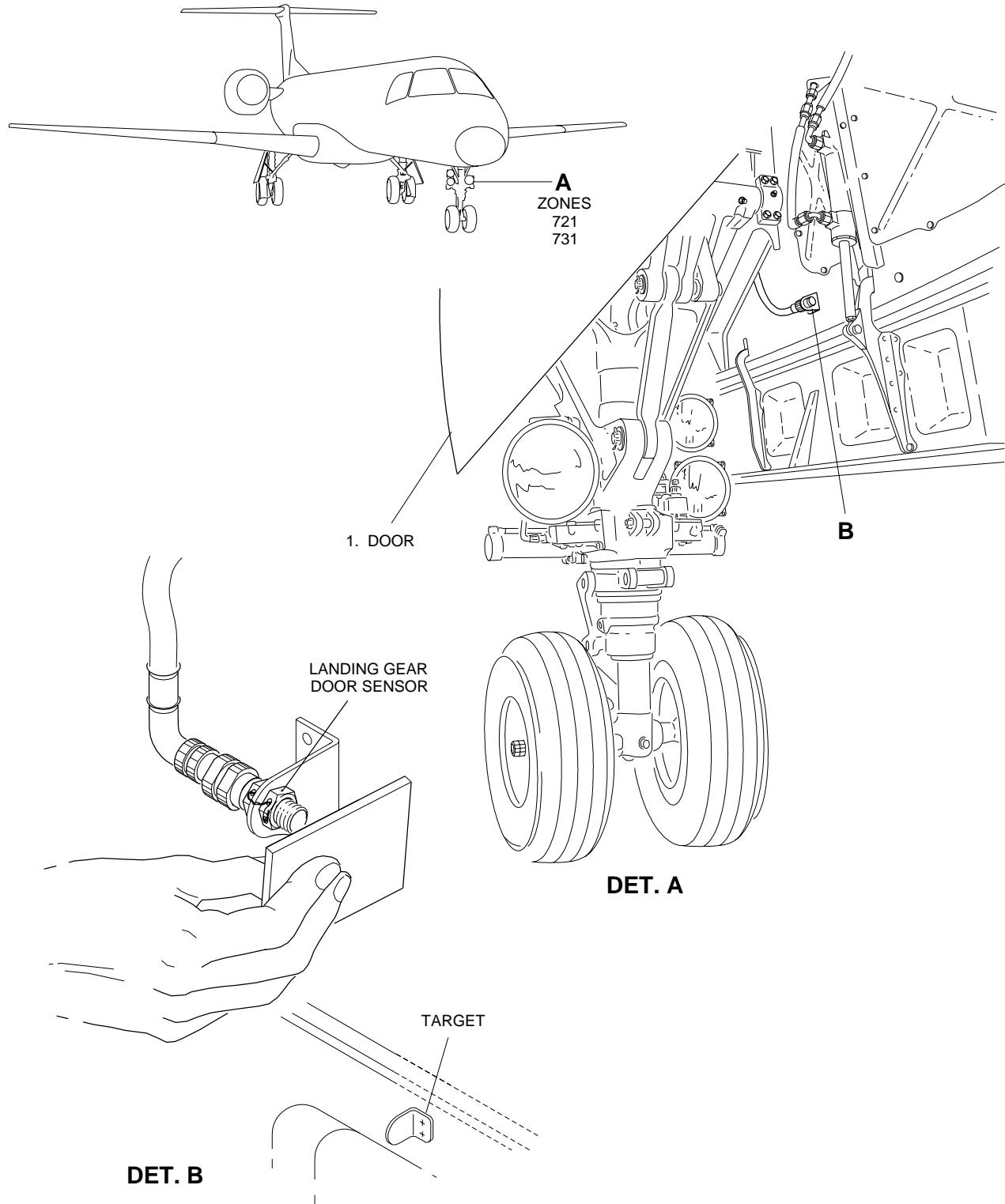


EFFECTIVITY: JAA CERTIFIED AIRCRAFT
Nose-Landing-Gear Door-Open Indication - Operational Test
 Figure 501 - Sheet 2



145AMM320315.MCE B

EFFECTIVITY: JAA CERTIFIED AIRCRAFT
Nose-Landing-Gear Door-Open Indication - Operational Test
 Figure 501 - Sheet 3



145AMM320321.MCE A

