LANDING GEAR EXTENSION AND RETRACTION (ELECTRICAL) - ADJUSTMENT/TEST

EFFECTIVITY: ALL

1. General

A. This section gives the procedures to do the operational check of the landing gear extension and retraction system, through channels A and B, and to do a functional check of the landing gear control lever without the use of jacks, after replacement of the landing gear.

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*
32-32-00-700-801-A ♦	LG EXTENSION AND RETRACTION SYSTEM THROUGH CHANNELS A AND B - OPERATIONAL CHECK (WITH JACKS)	ALL
32-32-00-700-802-A	FUNCTIONAL CHECK OF THE LANDING GEAR CONTROL LEVER AFTER REPLACEMENT OF THE LANDING GEAR (WITHOUT JACKS)	ALL

TASK 32-32-00-700-801-A
EFFECTIVITY: ALL

2. LG EXTENSION AND RETRACTION SYSTEM THROUGH CHANNELS A AND B - OPERATIONAL CHECK (WITH JACKS)

A. General

(1) This procedure gives the instructions to do the check of the landing gear extension and retraction system through channels A and B, with the use of jacks.

B. References

REFERENCE	*DESIGNATION*
AMM TASK 07-10-00-500-801-A/200	-
AMM TASK 07-10-00-500-802-A/200	-
AMM TASK 20-40-01-860-801-A/200	ENERGIZATION OF THE AIRCRAFT WITH AN EXTERNAL POWER SOURCE
AMM TASK 29-10-00-860-801-A/200	HYDRAULIC SYSTEM - PRESSURIZATION WITH HTS
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 32-63-05-700-801-A/500	PROXIMITY SWITCH (SENSOR) - FUNCTIONAL CHECK
FIM TASK 32-32-00-810-802-A	-
S.B.145-32-0036	-
S.B.145-32-0073	-
SB145-32-0036	-

C. Zones and Accesses

Not Applicable

D. Tools and Equipment

ITEM	*DESCRIPTION*	*PURPOSE*	*QTY*
GSE 050	Multimeter	To measure the voltage	

E. Auxiliary Items

Not Applicable

F. Consumable Materials

SPECIFICATION (BRAND)	*DESCRIPTION*	*QTY*
Commercially available	Adhesive Tape	AR

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	*FUNCTION*	*PLACE*
1	Does the task	Cockpit
1	Helps the other technician	Area where the LG operates

I. Preparation

SUBTASK 841-002-A

WARNING: BEFORE YOU ENERGIZE OR DE-ENERGIZE THE AIRCRAFT WHEN IT IS ON JACKS AND WITH THE LANDING GEAR UP AND LOCKED, MAKE SURE THAT THERE ARE NO MAINTENANCE PERSONNEL AT WORK IN THE NOSE LANDING GEAR AREA BECAUSE THE NOSE GEAR DOORS ARE ELECTRICALLY CONTROLLED AND:

- **IF THE NOSE GEAR DOORS ARE CLOSED AND ELECTRICAL POWER IS REMOVED, THE DOORS WILL OPEN AUTOMATICALLY; OR**
- **IF THE NOSE GEAR DOORS ARE OPEN AND WITHOUT ELECTRICAL POWER, THE DOORS WILL CLOSE AUTOMATICALLY WHEN ELECTRIC POWER IS APPLIED.**

IF YOU DO NOT OBEY THESE PRECAUTIONS, SERIOUS INJURY TO MAINTENANCE PERSONS CAN OCCUR.

(1) Lift the aircraft on jacks. Refer to AMM TASK 07-10-00-500-801-A/200.

(2) Isolate the landing gear operation area (RH MLG, LH MLG and NLG) with fences.

WARNING: ON THE WEATHER RADAR CONTROLLER, MAKE SURE THAT THE MODE ROTARY SWITCH IS IN THE "OFF" POSITION. IF THE AIRCRAFT HAS TWO WEATHER RADAR CONTROLLERS, SET THE TWO SWITCHES TO THE "OFF" POSITION. IT WILL PREVENT THE ACCIDENTAL TRANSMISSION OF THE WEATHER RADAR WITH THE AIRCRAFT ON JACKS.

(3) Energize the aircraft (AMM TASK 20-40-01-860-801-A/200).

(4) On the circuit breaker panel, open the LDG GEAR IND 1 and LDG GEAR IND 2 circuit breakers.

(a) After approximately 20 seconds, the EICAS display shows the "LG/LEVER DISAGREE" message and the landing gear indications (three boxes) are crosshatched and red (Figure 502).

(5) On the landing gear hydraulic compartment, disconnect the P0036 connector from the door hydraulic solenoid valve.

(6) Set the landing gear control lever to the UP position.

(7) With a multimeter, make sure that there is no ground signal at pin B of connector P0036.

NOTE: If there is ground signal at pin B, do the check of the related harness and repair it, as necessary. If the ground signal continues at pin B, replace the LGEU.

(8) Set the landing gear control lever to the DN position.

(9) Connect connector P0036 to the door hydraulic solenoid valve.

(10) On the circuit breakers panel, close at the same time, the LDG GEAR IND 1 and LDG GEAR IND 2 circuit breakers.

(a) The warning message "LG/LEVER DISAGREE" goes out of view on the EICAS display.

WARNING: BEFORE YOU DO THE CHECK GIVEN IN SUBTASK J. , MAKE SURE THAT STEP 11 IS OBEYED.

(11) (For aircraft under JAA certification only):

Before you do check (J), make sure that the "NLG UP/DOORS OPEN" message does not come into view on the EICAS display. If the message is on the EICAS display, do a check of the UPLOCK proximity switches (AMM TASK 32-63-05-700-801-A/500) of the nose landing gear and related harness.

WARNING: BEFORE YOU DO THE CHECK GIVEN IN SUBTASK J. , MAKE SURE THAT STEP 12 IS FULLY OBEYED.

(12) (For aircraft under the FAA/ CTA/ IAC-AR certification only):

Do the precheck as follows:

(a) Make sure that the pressure is fully released from hydraulic system 1.

(b) Install the landing gear safety pins (AMM TASK 32-00-01-910-801-A/200).

(c) For aircraft POST-MOD SB145-32-0036, install the safety pin of the NLG doors solenoid valve (AMM TASK 32-00-02-910-801-A/200).

(d) On the circuit breaker panel, open the CMD and DOOR CMD circuit breakers.

(e) On the circuit breaker panel, open the LDG GEAR IND 1 circuit breaker. Then push the DN LOCK REL button and, at the same time, set the landing gear control lever to the UP position.

(f) After approximately 20 seconds, the EICAS display shows the "LG/LEVER DISAGREE" message and the landing gear indications (three boxes) are crosshatched and red (Figure 502). If a box is out of this configuration, do a check of the related UPLOCK proximity switches (AMM TASK 32-63-05-700-801-A/500) and related harness.

(g) Set the landing gear control lever to the DN position.

1 The "LG/LEVER DISAGREE" message goes out of view on the EICAS.

(h) On the circuit breaker panel, open the LDG GEAR IND 2 circuit breaker. After this, close the LDG GEAR IND 1 and LDG GEAR IND 2 circuit breakers at the same time.

(i) On the circuit breaker panel, open the LDG GEAR IND 2 circuit breaker. Then push the DN LOCK REL button and, at the same time, set the landing gear control lever to the UP position.

(j) After approximately 20 seconds, the EICAS display shows the "LG/LEVER DISAGREE" message and the landing gear indications (three boxes) are crosshatched and red (Figure 502). If a box is out of this configuration, do a check of the related UPLOCK proximity switches (AMM TASK 32-63-05-700-801-A/500) and related harness.

(k) Set the landing gear control lever to the DN position.

1 The "LG/LEVER DISAGREE" message goes out of view on the EICAS.

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

(m) On the circuit breaker panel, close the CMD and DOOR CMD circuit breakers.

(n) Remove the LG safety pins (AMM TASK 32-00-01-910-801-A/200).

(o) For aircraft POST-MOD SB145-32-0036, remove the safety pin of the NLG doors solenoid valve (AMM TASK 32-00-02-910-801-A/200).

(13) Pressurize hydraulic system 1 (AMM TASK 29-10-00-860-801-A/200).

J. Operational Check of the Landing Gear Extension and Retraction (Electrical) Indication and Downlock Relays Through Channels A and B (With Jack) (Figure 501) (Figure 502) (Figure 503) (Figure 504) (Figure 505) (Figure 506)

SUBTASK 710-002-A

WARNING: BEFORE YOU ENERGIZE OR DE-ENERGIZE THE AIRCRAFT WHEN IT IS ON JACKS AND WITH UP AND LOCKED LANDING GEAR, MAKE SURE THAT THERE ARE NO MAINTENANCE PERSONNEL AT WORK IN THE NOSE LANDING GEAR AREA BECAUSE THE NOSE GEAR DOORS ARE ELECTRICALLY CONTROLLED AND:

- **IF THE NOSE GEAR DOORS ARE CLOSED AND ELECTRICAL POWER IS REMOVED, THE DOORS WILL OPEN AUTOMATICALLY; OR**
- **IF THE NOSE GEAR DOORS ARE OPEN AND WITHOUT ELECTRICAL POWER, THE DOORS WILL CLOSE AUTOMATICALLY WHEN ELECTRIC POWER IS APPLIED.**

IN EITHER CASE, SERIOUS INJURY TO MAINTENANCE PERSONS CAN OCCUR.

WARNING: BEFORE YOU DO THIS CHECK, MAKE SURE THAT ALL STEPS IN SUBTASK I. "PREPARATION" ARE FULLY OBEYED.

(1) (Only for aircraft under the FAA/ CTA/ IAC-AR certification):

Do this check:

WARNING: DO NOT CLOSE THE LDG GEAR IND1 OR LDG GEAR IND2 CIRCUIT BREAKER WITH THE LANDING GEAR DOWN AND LOCKED AND THE LG CONTROL LEVER IN THE UP POSITION. IT CAN CAUSE LOSS OF THE SYSTEM PROTECTION.

(a) On the circuit breaker panel, open the LDG GEAR IND 1 (related to channel A) and LDG GEAR IND 2 (related to channel B) circuit breakers.

Result:

1 After approximately 20 seconds, the "LG/LEVER DISAGREE" message comes into view on the EICAS, and the landing gear indications (three boxes) are crosshatched and change to red (Figure 502).

(b) Set the LG control lever to the UP position.

Result:

1 The landing gear does not retract and the landing gear indication boxes on the EICAS stay red.

(c) Set the LG control lever to the DN position.

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

Result:

1 The "LG/LEVER DISAGREE" message goes out of view on the EICAS.

(e) On the circuit breaker panel, open the LDG GEAR IND 2 circuit breaker.

(f) Set the LG control lever to the UP position.

Result:

1 The landing gear retracts and lock in the UP position.

2 The NLG wheelwell doors close.

NOTE: If the doors do not close, do the troubleshooting procedures. Refer to FIM TASK 32-32-00-810-802-A.

(g) Set the LG control lever to the DN position.

Result:

1 The landing gear extends and lock in the DN position (Figure 505).

NOTE: The results of the check with the LDG GEAR IND 1 circuit breaker show that channel A is OK.

(h) On the circuit breaker panel, open the LDG GEAR IND 1 circuit breaker. After this, close the LDG GEAR IND 1 and LDG GEAR IND 2 circuit breakers at the same time.

(i) On the circuit breaker panel, open the LDG GEAR IND 1 circuit breaker.

(j) Set the LG control lever to the UP position.

Result:

1 The landing gear retracts and lock in the UP position.

2 The NLG wheelwell doors close.

(k) Set the LG control lever to the DN position.

Result:

1 The landing gear extends and lock in the DN position (Figure 505).

NOTE: The results of the check with the LDG GEAR IND 2 circuit breaker show that channel B is OK.

(l) On the circuit breaker panel, open the LDG GEAR IND 2 circuit breaker.

(m) Close the LDG GEAR IND 1 and LDG GEAR IND 2 circuit breakers at the same time.

(2) (For aircraft under JAA certification only):

Do this check:

WARNING: DO NOT CLOSE THE LDG GEAR IND1 OR LDG GEAR IND2 CIRCUIT BREAKER WITH THE LANDING GEAR DOWN AND LOCKED AND THE LG CONTROL LEVER IN THE UP POSITION. IT CAN CAUSE LOSS OF THE SYSTEM PROTECTION.

(a) On the circuit breaker panel, open the LDG GEAR IND 1 (related to channel A) and LDG GEAR IND 2 (related to channel B) circuit breakers.

Result:

1 After approximately 20 seconds, the "LG/LEVER DISAGREE" message comes into view on the EICAS, and the landing gear indications (three boxes) are crosshatched and change to red (Figure 502).

(b) Set the LG control lever to the UP position.

Result:

1 The landing gear does not retract and the landing gear indication boxes on the EICAS stay red.

(c) Set the LG control lever to the DN position.

(d) On the circuit breaker panel, open the DOOR CMD circuit breaker.

On the landing gear hydraulic compartment, disconnect connector P0036 from the door hydraulic solenoid valve.

(e) Close the LDG GEAR IND 1 and LDG GEAR IND 2 circuit breakers at the same time.

Result:

1 The "LG/LEVER DISAGREE" message goes out of view on the EICAS.

(f) On the circuit breaker panel, open the LDG GEAR IND 2 circuit breaker.

(g) Push the DN LOCK REL button and, at the same time, set the LG control lever to the UP position.

Result:

1 The landing gear retracts and lock in the UP position.

2 The NLG wheelwell doors do not close.

NOTE: If the doors close, do the troubleshooting procedures. Refer to FIM TASK 32-32-00-810-802-A.

3 On the EICAS display, the message "NLG UP/DOOR OPN" comes into view.

4 After approximately 20 seconds, the central landing gear indication box (nose landing gear) changes to red (Figure 503) and the message "LG/ LEVER DISAGREE" comes into view.

(h) In the landing gear hydraulic compartment, connect connector P0036 to the door hydraulic solenoid valve.

On the circuit breaker panel, close the DOOR CMD circuit breaker.

Result:

1 The NLG wheelwell doors close.

NOTE: If the doors do not close, do the troubleshooting procedures. Refer to FIM TASK 32-32-00-810-802-A.

2 For aircraft PRE-MOD. S.B.145-32-0073, on the EICAS display, the landing gear indication boxes show the landing gear status (Figure 503) and the message "NLG UP/DOOR OPN" stays on.

3 For aircraft PRE-MOD. S.B.145-32-0073, the central landing gear indication box (nose landing gear) stays red and the message "LG/LEVER DISAGREE" stays on.

4 For aircraft POST-MOD. S.B.145-32-0073, on the EICAS display, make sure that the messages "NLG UP/DOOR OPN" and "LG/LEVER DISAGREE" stay out of view.

(i) Set the LG control lever to the DN position.

Result:

1 The NLG wheelwell doors open.

2 The landing gear extends and lock in the DN position (Figure 505).

3 For aircraft PRE-MOD. S.B.145-32-0073, the messages "LG/LEVER DISAGREE" and "NLG UP/DOOR OPN" go out of view and the landing gear indication boxes change to green on the EICAS display (Figure 505).

NOTE: The results of the check with the LDG GEAR IND 1 circuit breaker show that channel A is OK.

4 For aircraft POST-MOD. S.B.145-32-0073, on the EICAS display, the landing gear indication boxes show the landing gear status (Figure 506) and the messages NLG UP/DOOR OPN and LG/LEVER DISAGREE go out of view.

(j) On the circuit breaker panel, open the DOOR CMD circuit breaker.

On the landing gear hydraulic compartment, disconnect the P0036 connector from the door hydraulic solenoid valve.

(k) On the circuit breaker panel, open the LDG GEAR IND 1 circuit breaker. After this, close the LDG GEAR IND 1 and LDG GEAR IND 2 circuit breakers at the same time.

(l) On the circuit breaker panel, open the LDG GEAR IND 1 circuit breaker.

(m) Push the DN LOCK REL button and, at the same time, set the LG control lever to the UP position.

Result:

1 The landing gear retracts and lock in the UP position.

2 The NLG wheelwell doors do not close.

NOTE: If the doors close, do the troubleshooting procedures. Refer to FIM TASK 32-32-00-810-802-A.

3 The message "NLG UP/DOOR OPN" comes into view on the EICAS display.

4 After approximately 20 seconds, the central landing gear indication box (nose landing gear) changes to red and the message "LG/LEVER DISAGREE" comes into view (Figure 503).

(n) In the landing gear hydraulic compartment, connect connector P0036 to the door hydraulic solenoid valve.

On the circuit breaker panel, close the DOOR CMD circuit breaker.

Result:

1 The NLG wheelwell doors close.

NOTE: If the doors do not close, do the troubleshooting procedures. Refer to FIM TASK 32-32-00-810-802-A.

2 On the EICAS display, the landing gear indication boxes show the landing gear status (Figure 503) and the message "NLG UP/DOOR OPN" stays on.

3 The central landing gear indication box (nose landing gear) stays red and the message "LG/LEVER DISAGREE" stays on.

(o) Set the LG control lever to the DN position.

Result:

1 The NLG wheelwell doors open.

2 The landing gear extends and lock in the DN position (Figure 505).

3 For aircraft PRE-MOD. S.B.145-32-0073, the messages "LG/LEVER DISAGREE" and "NLG UP/DOOR OPN" go out of view and the landing gear indication boxes change to green on the EICAS display (Figure 505).

NOTE: The results of the check with the LDG GEAR IND 2 circuit breaker show that channel B is OK.

4 For aircraft POST-MOD. S.B.145-32-0073, on the EICAS display, the landing gear indication boxes show the landing gear status (Figure 506) and the messages NLG UP/DOOR OPN and LG/LEVER DISAGREE go out of view.

(p) On the circuit Breaker panel, open the LDG GEAR IND 2 circuit breaker. After this, close the LDG GEAR IND 1 and LDG GEAR IND 2 circuit breakers at the same time.

(3) (Only on aircraft equipped with NLG door-sequence proximity switch) (Figure 504)

Do this check :

(a) For aircraft PRE-MOD. S.B.145-32-0036, make sure that the pressure in hydraulic system No. 1 is fully released AMM TASK 29-10-00-860-801-A/200.

(b) For aircraft POST-MOD. S.B.145-32-0036, install the safety pin of the NLG doors solenoid valve (AMM TASK 32-00-02-910-801-A/200).

(c) Move the uplock box hook manually and, with adhesive tape, attach a metallic target in front of the NLG door-sequence proximity switch (Figure 504).

(d) Use the free-fall lever to put the uplock box back into the unlocking condition.

(e) Move the free-fall lever back to its normal position.

(f) For aircraft PRE-MOD. S.B.145-32-0036, pressurize hydraulic system 1 (AMM TASK 29-10-00-860-801-A/200).

(g) For aircraft POST-MOD SB145-32-0036, remove the safety pin of the NLG doors solenoid valve (AMM TASK 32-00-02-910-801-A/200).

(h) Set the LG control lever to the UP position.

1 The landing gear retracts and lock in the UP position.

2 The NLG wheelwell doors do not close.

NOTE: If the doors close, do the troubleshooting procedures. Refer to FIM TASK 32-32-00-810-802-A.

3 (For aircraft under JAA configuration only):

After approximately 20 seconds, the central landing gear box (nose landing gear) changes to red. (Figure 503). On the EICAS display, the messages "NLG UP/DOOR OPN" and "LG/LEVER DISAGREE" come into view.

(i) Set the LG control lever to the DN position.

1 (For aircraft under JAA configuration only):

The "'NLG UP/DOOR OPEN' and "LG/LEVER DISAGREE" messages go out of view on the EICAS.

K. Follow-on

SUBTASK 842-002-A

(1) Fully release the pressure from hydraulic system 1 (AMM TASK 29-10-00-860-801-A/200).

(2) De-energize the aircraft (AMM TASK 20-40-01-860-801-A/200).

(3) Remove the metallic target attached with adhesive tape in front of the NLG door-sequence proximity switch (see Figure 504).

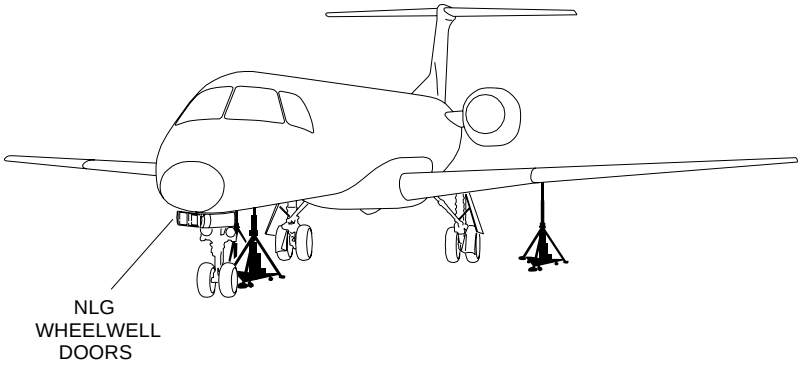
(4) Install the LG safety pins (AMM TASK 32-00-01-910-801-A/200).

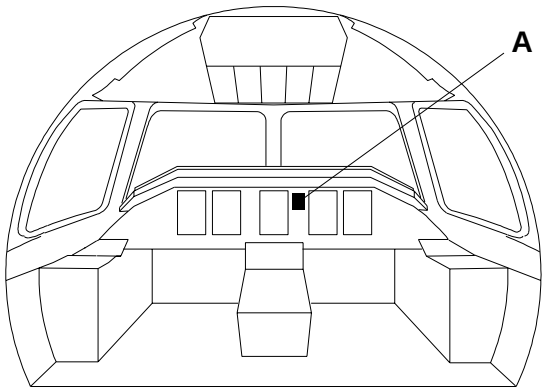
(5) Remove the fences from around the landing-gear operation area.

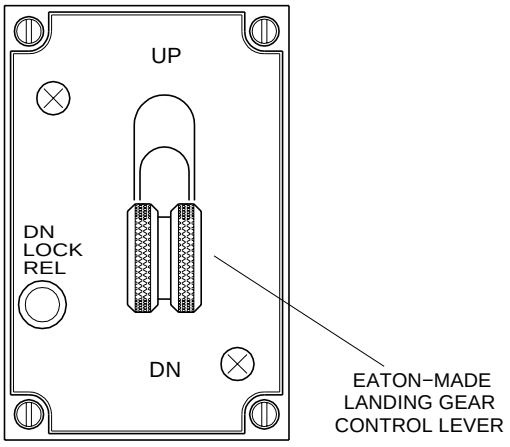
(6) Lower the aircraft and remove the jacks (AMM TASK 07-10-00-500-802-A/200).

EFFECTIVITY: ALL

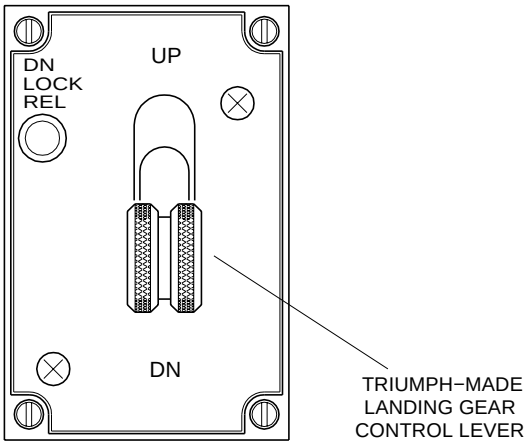
LG Extension and Retraction System Through Channels A and B - Operational and Functional Checks of the Landing Gear Control Lever After Replacement of the Landing Gear
Figure 501







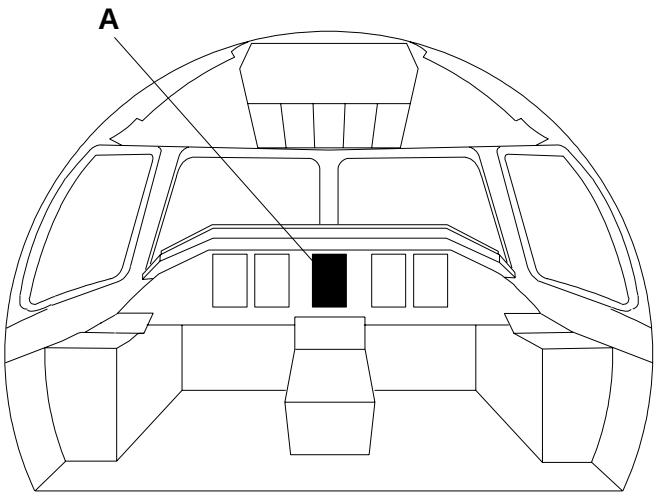
DET. A

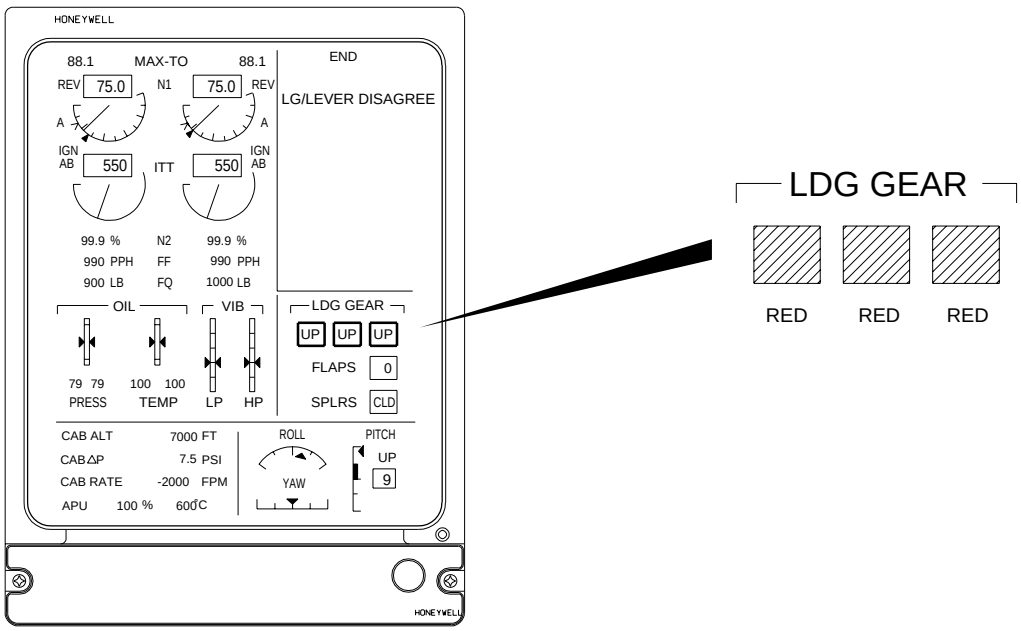


DET. A

145AMM320021D.MCE

EFFECTIVITY: ALL
Landing Gear Indication
Figure 502

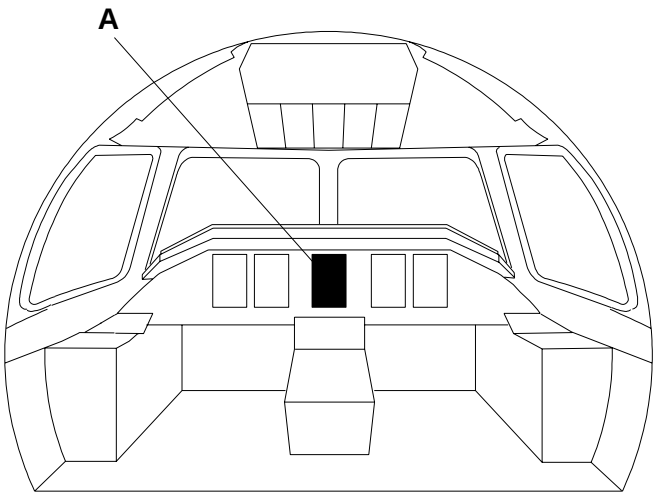


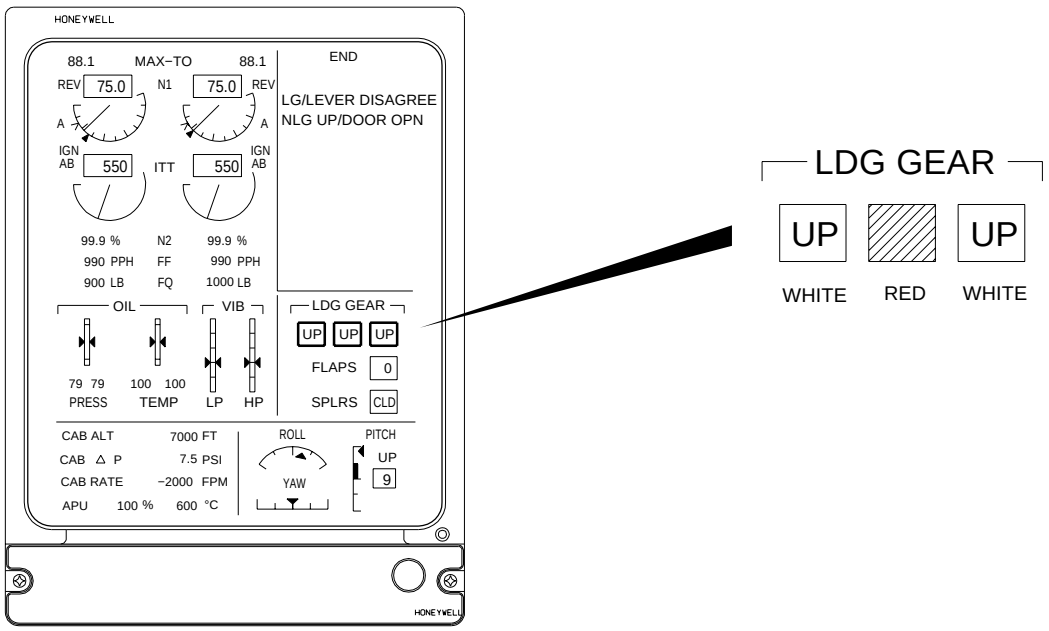


DET. A

145AMM320452.MCE A

EFFECTIVITY: JAA CERTIFIED AIRCRAFT
Landing Gear Indication
Figure 503





DET. A

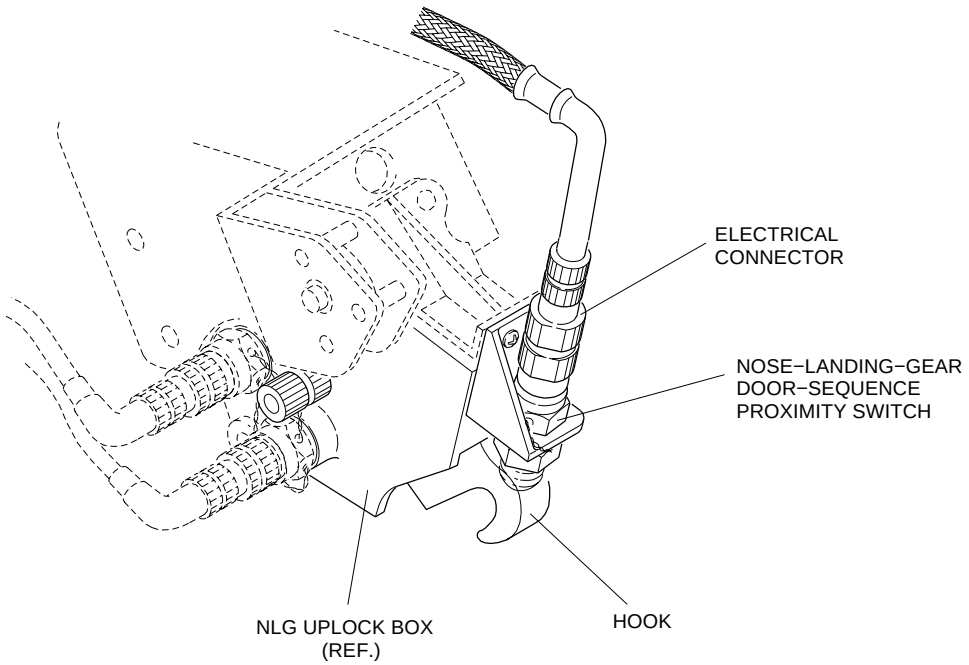
EM145AMM320322C.DGN

EFFECTIVITY: FOR AIRCRAFT WITH NLG DOOR SEQUENCE PROXIMITY SWITCH

NLG Door Sequence Proximity Switch

Figure 504

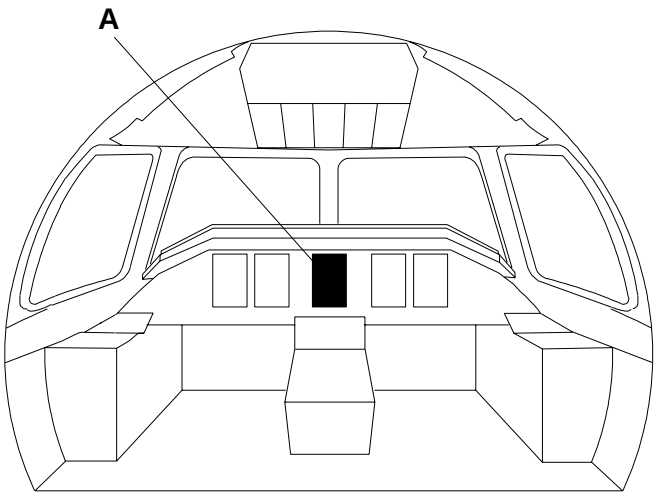
DET. A

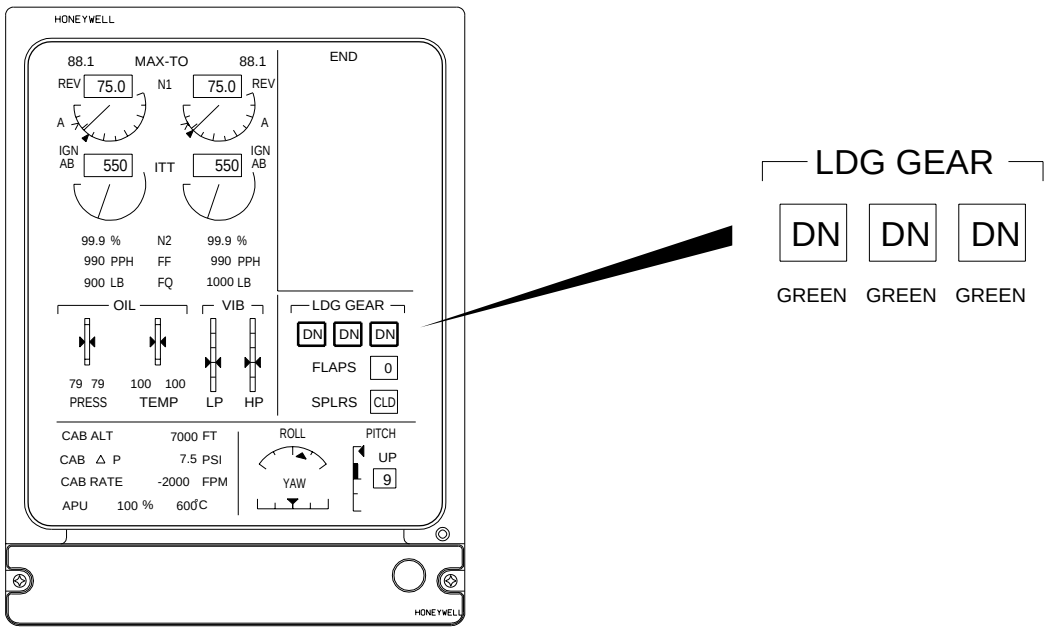


DET. B

145AMM320511.MCE

EFFECTIVITY: ALL
Landing Gear Indication
Figure 505

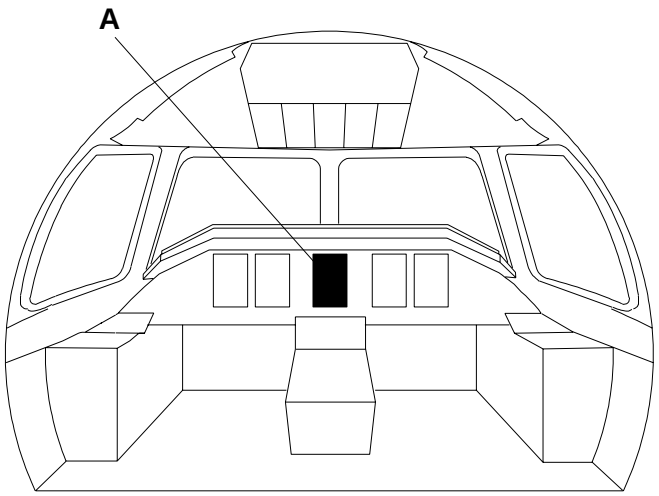


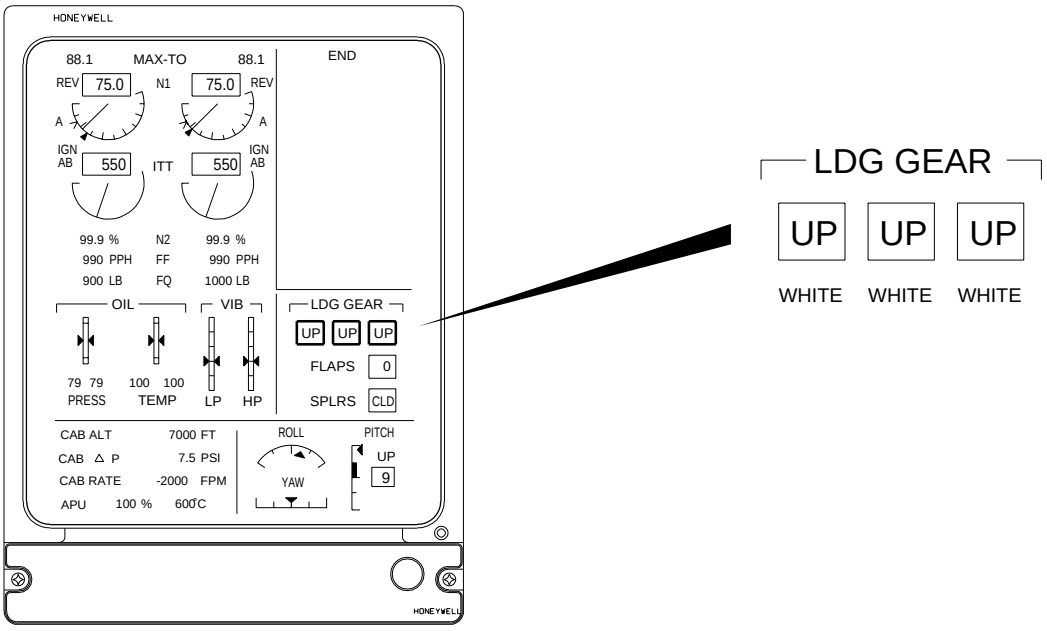


DET. A

145AMM320470.MCE

EFFECTIVITY: ALL
Landing Gear Indication
Figure 506





DET. A

145AMM320471.MCE

TASK 32-32-00-700-802-A
EFFECTIVITY: ALL

3. FUNCTIONAL CHECK OF THE LANDING GEAR CONTROL LEVER AFTER REPLACEMENT OF THE LANDING GEAR (WITHOUT JACKS)

A. General

(1) This procedure gives the instructions to do the functional check of the landing gear control lever, without the use of jacks.

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 32-60-00-910-801-A/200	LANDING GEAR PROXIMITY SWITCH AND HARNESS ELECTRICAL CONNECTORS - RESTORATION AND PROTECTION

C. Zones and Accesses

Not Applicable

D. Tools and Equipment

ITEM	*DESCRIPTION*	*PURPOSE*	*QTY*
GSE 050	Digital Multimeter	Measure the voltage	

E. Auxiliary Items

ITEM	*DESCRIPTION*	*PURPOSE*	*QTY*
Commercially available	Rubber Goggles, Phosphate Ester-Base, Fluid-Resistant	Protection for Eyes	1
Commercially available	Rubber Gloves, Phosphate Ester-Base, Fluid-Resistant	Protection for Hands	1

F. Consumable Materials

SPECIFICATION (BRAND)	*DESCRIPTION*	*QTY*
MIL-L-87177	Lektro-Tech Super Corr-A	AR

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	*FUNCTION*	*PLACE*
1	Does the task	Cockpit
1	Helps the other technician	Area where the LG operates

I. Preparation

SUBTASK 841-003-A

(1) Make sure that the landing gear safety pins are installed on all MLG and NLG (AMM TASK 32-00-01-910-801-A/200).

(2) Energize the aircraft (AMM TASK 20-40-01-860-801-A/200).

(3) Make sure that the hydraulic system is not energized.

(4) Make sure that the pressure in hydraulic system No. 1 is fully released (AMM TASK 29-10-00-860-802-A/200).

J. Functional Check of the Landing-Gear Control-Lever After Replacement of the Landing Gear (Without Jacks) (Figure 501)

SUBTASK 710-003-A

(1) Do this check:

NOTE: To simulate an aircraft in-flight condition, it is necessary that you install a metallic target in front of the WOW (weight-on-wheels) proximity switches. The metallic target can be attached with adhesive tape.

(a) Install a metallic target in front of all WOW proximity switches (two on each main landing gear and one on the nose landing gear) to simulate an aircraft in-flight condition.

(b) Reset the air/ground channels of the LGEU - landing gear electronic unit as follows:

1. Open the AIR/GND A, AIR/GND B, AIR/GND C, and AIR/GND D circuit breakers. Then close the circuit breakers in 10 seconds maximum.

NOTE: During the reset (3 sec. max.), the LG AIR/GND FAIL caution message is activated. After the reset, the message goes out of view.

(c) Disconnect LG solenoid-valve connector P0037 and door solenoid valve connector P0036.

(d) Make sure that the LDG GEAR IND 1, LDG GEAR IND 2, LG CMD, and DOOR CMD circuit breakers are closed.

Result:

1 Make sure that the landing gear down indication on the EICAS and RMU is correct.

(e) Set the control lever to the up position.

Result:

1 Make sure that for the lever to move to the up position it is not necessary to push the down-lock override switch, installed on the control lever panel.

2 Make sure that, after the warning message LG LEVER DISAGREE comes into view, the indicators on the EICAS become red and the LG DN LOCKED message on the RMU stays in view.

(f) With a multimeter, measure these outputs at LG solenoid connector P0037.

Result:

1 28 V DC between pins D and E.

2 From 0 to 2.5 V DC between pins A and B.

(g) With a multimeter, measure the output at Doors solenoid connector P0036:

Result:

1 From 0 to 2.5 V DC between pins A and B.

(h) Disconnect all down proximity switches.

Result:

1 Make sure that all gear indicators on the EICAS change to transit configuration. The LG DN LOCKED message, on the RMU, goes out of view.

(i) Push the hook of the uplocking box of the left and right gear to simulate main landing gear up and locked.

Result:

1 Make sure that the EICAS shows that the main landing gear legs are up and locked (nose stays in transit).

(j) With a multimeter, make sure that the status of the outputs are the same as in item (1) action (f) - result (1).

(k) (For aircraft under JAA configuration only):

With adhesive tape, attach a metallic target in front of the two NLG door-open proximity switches installed in the NLG compartment.

(l) Push the hook of the uplocking box of the nose gear to simulate nose landing gear in the up and locked condition.

Result:

1 Make sure that the EICAS shows that the nose gear is up and locked.

(m) With a multimeter, measure this output at LG solenoid connector P0037:

Result:

1 From 0 to 2.5 V DC between pins D and E.

(n) With a multimeter, measure this output at the Doors solenoid connector P0036:

Result:

1 28 V DC between pins A and B.

(o) Move the lever down.

(p) With a multimeter, measure these outputs at connector P0037.

Result:

1 From 0 to 2.5 V DC between pins D and E.

2 28 V DC between pins A and B.

(q) With a multimeter, measure this output at connector P0036.

Result:

1 From 0 to 2.5 V DC between pins A and B.

2 On the EICAS, after the LG LEVER DISAGREE message comes into view, the uplocking indicators become red.

(r) Use the free-fall lever to unlock the uplocking box hooks.

Result:

1 Make sure that the EICAS shows that the landing gear is in transit.

(s) If the down proximity switch connectors have signs of damage, contamination, or corrosion, do the maintenance procedures on the electrical connectors. Refer to AMM TASK 32-60-00-910-801-A/200.

WARNING: DO NOT GET LUBRICANT AND ANTICORROSIVE FILM PN LEKTRO-TECH SUPER CORR-A IN YOUR MOUTH OR EYES, OR ON YOUR SKIN. DO NOT BREATHE THE FUMES FROM MEK. PUT ON A PROTECTIVE SPLASH GOGGLE AND GLOVES WHEN YOU USE LUBRICANT AND ANTICORROSIVE FILM PN LEKTRO-TECH SUPER CORR-A. KEEP LUBRICANT AND ANTICORROSIVE FILM PN LEKTRO-TECH SUPER CORR-A AWAY FROM SPARKS, FLAME, AND HEAT. LUBRICANT AND ANTICORROSIVE FILM PN LEKTRO-TECH SUPER CORR-A IS A POISONOUS AND FLAMMABLE SUBSTANCE.

(t) Connect all down proximity switch connectors to have a down indication on the EICAS.

NOTE: Before the connection of the connector, apply Lektro-Tech Super Corr-A to the plug connector to prevent corrosion and clean the contacts.

(u) With a multimeter, measure these outputs at connector P0037:

Result:

1 From 0 to 2.5 V DC between pins D and E.

2 From 0 to 2.5 V DC between pins A and B.

(v) With a multimeter, measure this output at connector P0036.

Result:

1 From 0 to 2.5 V DC between pins A and B.

(w) Do the procedures from item J (1), action (e) to item J (1), action (t), again.

(x) On the circuit breaker panel, open the LDG GEAR IND1, LDG GEAR IND2, LG CMD, DOOR CMD, LDG GEAR AIR/GND A, LDG GEAR AIR/GND B, LDG GEAR AIR/GND C, and LDG GEAR AIR/GND D circuit breakers.

(y) Connect connectors P0036 and P0037 again to the related solenoid valves.

NOTE: Make sure that the free-fall is in its correct condition.

(z) Remove the metallic target from the WOW proximity switches.

(aa) Do the protection against corrosion on the down proximity switches and the electrical connectors . Refer to AMM TASK 32-60-00-910-801-A/200.

(ab) On the circuit breaker panel, close the LDG GEAR IND1, LDG GEAR IND2, LG CMD, DOOR CMD, LDG GEAR AIR/GND A, LDG GEAR AIR/GND B, LDG GEAR AIR/GND C, and LDG GEAR AIR/GND D circuit breakers.

K. Follow-on

SUBTASK 842-003-A

(1) De-energize the aircraft (AMM TASK 20-40-01-860-801-A/200).