



AIRCRAFT
MAINTENANCE MANUAL

LANDING GEAR WARNING SYSTEM - ADJUSTMENT/TEST

EFFECTIVITY: ALL

1. General

- A. This section gives the procedure to do the check of the landing-gear warning system.
- 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
32-62-00-700-801-A ♦	LANDING-GEAR WARNING SYSTEM - OPERATIONAL CHECK	ALL



AIRCRAFT
MAINTENANCE MANUAL

TASK 32-62-00-700-801-A

EFFECTIVITY: ALL

2. LANDING-GEAR WARNING SYSTEM - OPERATIONAL CHECK

A. General

- (1) When you open the N2 SIGNAL circuit breakers, they show a condition equivalent to that of the engines in operation.
- (2) The N2 SIGNAL (1A, 1B) circuit breakers are related to engine 1.
- (3) The N2 SIGNAL (2A, 2B) circuit breakers are related to engine 2.

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 31-31-00-700-803-A/500	FDR DATA - PERSONAL COMPUTER DOWNLOADING
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
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

I. Preparation

SUBTASK 841-002-A

WARNING: IF IT IS NECESSARY TO ENERGIZE THE AIRCRAFT WHILE IT IS IN THE IN-FLIGHT CONDITION, MAKE SURE THAT THE WEATHER RADAR BUTTON IS IN OFF POSITION ON WEATHER RADAR CONTROLLER ON THE COCKPIT. FAILURE TO DO THIS LETS THE RADAR BE OPERATIONAL AND INJURY TO PERSONS IN THE ADJACENT AREA CAN OCCUR.

WARNING: MAKE SURE THAT THE PITOT 1 - TAT 1/AOA 1, PITOT 3, AND PITOT 2 - TAT 2/AOA 2 SENSOR PUSHBUTTONS, ON THE OVERHEAD PANEL, ARE SET AT OFF.

- (1) Aircraft on the ground.
- (2) For aircraft PRE-MOD [SB145-32-0036](#), make sure that the pressure in hydraulic system No. 1 is fully released ([AMM TASK 29-10-00-860-802-A/200](#)).
- (3) For 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](#)).
- (4) Install the landing gear safety pins ([AMM TASK 32-00-01-910-801-A/200](#)).
- (5) Energize the aircraft ([AMM TASK 20-40-01-860-801-A/200](#)).
- (6) On the overhead panel, set the BATT 1 switch to OFF and make sure that the BATT 2 switch is set to OFF.

NOTE: The switches of batteries 1 and 2 must be set to the OFF position to permit the external power to energize the electrical systems when the aircraft is in the AIR condition.

- (7) Do the pre-check as follows:
 - (a) On the circuit breaker panel, open the LDG GEAR IND1 circuit breaker.
 - 1 See, on EICAS display, if the status of the landing gear indications (three boxes) are "DN" and green.
 - 2 If some box is out of this configuration, do a check of the related DNLOCK proximity switch ([AMM TASK 32-63-05-700-801-A/500](#)) and related harness.
 - (b) Close the LDG GEAR IND1 circuit breaker.
 - (c) On the circuit breaker panel, open the LDG GEAR IND2 circuit breaker.
 - 1 See, on EICAS display, if the status of the landing gear indications (three boxes) are "DN" and green.
 - 2 If some box is out of this configuration, do a check of the related DNLOCK proximity switch ([AMM TASK 32-63-05-700-801-A/500](#)) and related harness.
 - (d) Close the LDG GEAR IND2 circuit breaker.

- (8) Show a condition equivalent to that of the AIR/GND system in flight. Follow the steps (9) through (14) below.

NOTE: These steps start the recording function of the FDR which will overwrite the data stored in the FDR.

If it is necessary to keep the data stored in the FDR, open the FDR circuit breaker on the circuit breaker panel or if it is necessary to keep the FDR on, do an FDR downloading according to [AMM TASK 31-31-00-700-803-A/500](#).

- (9) Attach a metallic target with adhesive in front of the WOW (WOW 1 and WOW 2) proximity switches installed in the left and right main landing gears.
- (10) On the circuit breaker panel, open the AIR/GND A, AIR/GND B, AIR/GND C, and AIR/GND D circuit breakers, then close them in 10 seconds maximum.
- (11) Push the PGE button of RMU 1 and RMU 2 and make sure that the MAINTENANCE label is not available on both RMU displays (aircraft in flight condition).
- (12) Set the thrust control levers of engines 1 and 2 to the THRUST SET position.
- (13) Set the flaps to the zero-degree (0°) position.
- (14) The RA 1 and RA 2 (optional) circuit breakers open to show a condition equivalent to radio altimeter(s) not valid.

- (15) The LDG GEAR IND 1 and LDG GEAR IND 2 circuit breakers open to show a condition equivalent to landing gear not locked down.

NOTE: Immediately after you do the step (15), the three position indications of the landing gear should be cross-hatched in amber. After 20 seconds, the "LG LEVER DISAGREE" message comes on view on the EICAS display and the three position indications become red.

- (16) Make sure that the N2 SIGNAL (1A, 1B, 2A, and 2B) circuit breakers are closed (engines shut down).

J. Operationally Check Landing-Gear Warning System ([Figure 501](#))

SUBTASK 710-002-A

NOTE: If there is a suspicion of proximity switch failure during the check, you can do the specific test of the proximity switch ([AMM TASK 32-63-05-700-801-A/500](#)).

- (1) Do the check as follows:
- (a) Set the thrust control lever of engine 1 to the IDLE position.
Result:
1 The voice message "LANDING GEAR" starts.
- (b) Set the thrust control lever of engine 1 to the THRUST SET position.
Result:
1 The voice message "LANDING GEAR" stops.
- (c) Set the thrust control lever of engine 2 to the IDLE position.
Result:
1 The voice message "LANDING GEAR" starts.

- (d) Push the MASTER WARNING CANCEL switch.
 Result:
 1 The voice message "LANDING GEAR" does not stop.
- (e) Set the thrust control lever of engine 2 to the THRUST SET position.
 Result:
 1 The voice message stops.
- (f) Move the thrust control lever of engine 1 rearward until the voice message "LANDING GEAR" starts. Mark this actuating point on the control pedestal (It is the first mark for engine 1). Push the LG WRN CUTOUT switch.
 Result:
 1 The voice message is cancelled.
- (g) Set the thrust control lever of engine 1 to the THRUST SET position.
- (h) Move the thrust control lever of engine 2 rearward, until the voice message "LANDING GEAR" starts. Mark this actuating point on the control pedestal (It is the first mark for engine 2). Push the LG WRN CUTOUT switch.
 Result:
 1 The voice message is cancelled and the LG WRN CUTOUT switch lamp comes on.
- (i) Set the thrust control lever of engine 2 to the THRUST SET position.
- (j) Open the N2 SIGNAL (1A, 1B, 2A, 2B) circuit breakers.
- (k) Move the thrust control lever of engine 2 to a position below the point marked at step (h) (First mark for engine 2), and move the thrust control lever of engine 1 rearward slowly, until the voice message "LANDING GEAR" starts. Mark this actuating point on the control pedestal (It is the second mark for engine 1).
- (l) Set the thrust control levers of engine 1 to the THRUST SET position.
 Result:
 1 The voice message "LANDING GEAR" stops.
- (m) Move the thrust control lever of engine 2 to the THRUST SET position and move the thrust control lever of engine 1 to a position between the first and the second point marked at steps (f) and (k). Then move the thrust control lever of engine 2 rearward slowly, until the voice message "LANDING GEAR" starts.
- (n) Set the thrust control levers of engine 2 to the THRUST SET position.
 Result:
 1 The voice message "LANDING GEAR" stops.
- (o) Close the N2 SIGNAL (1A, 1B) circuit breakers.
NOTE: The N2 SIGNAL (1A, 1B) circuit breakers show a condition equivalent to engine 1 stopped.
- (p) Move the thrust control lever of engine 1 to the thrust set position, and then set the thrust control lever of engine 1 to the IDLE position.
 Result:
 1 The voice message "LANDING GEAR" does not start.
- (q) Set the thrust control lever of engine 1 to the THRUST SET position.

Result:

1 The voice message "LANDING GEAR" stays off.

- (r) Set the thrust control lever of engine 2 to the point marked at step (h) (The first mark for engine 2).

Result:

1 The voice message "LANDING GEAR" starts.

- (s) Set the thrust control lever of engine 2 to the THRUST SET position.

Result:

1 The voice message "LANDING GEAR" stops.

- (t) On the Circuit Breaker Panel, open the N2 SIGNAL (1A, 1B) circuit breakers.

- (u) On the Circuit Breaker Panel, close the N2 SIGNAL (2A, 2B) circuit breakers.

NOTE: The N2 SIGNAL (2A, 2B) circuit breakers show a condition equivalent to engine 2 stopped.

- (v) Set the thrust control lever of engine 1 to the point marked at step (f) (The first mark for engine 1).

Result:

1 The voice message "LANDING GEAR" starts.

- (w) Set the thrust control lever of engine 1 to the THRUST SET position.

Result:

1 The voice message "LANDING GEAR" stops.

- (x) Set the thrust lever of engine 2 to the IDLE position.

Result:

1 The voice message "LANDING GEAR" stays off.

- (y) Set the thrust control lever of engine 2 to the THRUST SET position.

Result:

1 The voice message "LANDING GEAR" stays off.

- (z) On the Circuit Breaker Panel, close the RA 1, RA 2, and N2 (1A, 1B) circuit breakers.

- (aa) Set the thrust lever of engine 1 to the position marked at step (f) (The first mark for engine 1).

Result:

1 The voice message "LANDING GEAR" starts.

- (ab) Set the thrust control lever of engine 1 to the THRUST SET position.

Result:

1 The voice message "LANDING GEAR" stops.

- (ac) Set the thrust lever of engine 2 to the position marked at step (h) (The first mark for engine 2).

Result:

1 The voice message "LANDING GEAR" starts.

- (ad) Set the thrust control lever of engine 2 to the THRUST SET position.

Result:

1 The voice message "LANDING GEAR" stops.

(ae) Make sure that the flap control lever is at the 0° position and, on the Circuit Breaker Panel, open the FLAP 1 and FLAP 2 circuit breakers.

(af) Set the flap control lever to the 22° position.

(ag) Set the thrust control lever of engine 1 to the IDLE position.

Result:

1 The voice message "LANDING GEAR" starts.

(ah) Push the MASTER WARNING CANCEL switch.

Result:

1 The voice message "LANDING GEAR" stays on. Push the LG WRN CUTOUT switch and the voice message stays on.

(ai) Set the thrust control lever of engine 1 to the THRUST SET position.

Result:

1 The voice message "LANDING GEAR" stops.

(aj) Set the thrust control lever of engine 2 to the IDLE position.

Result:

1 The voice message "LANDING GEAR" starts.

(ak) Push the MASTER WARNING CANCEL switch.

Result:

1 The voice message "LANDING GEAR" stays on. Push the LG WRN CUTOUT switch and the voice message stays on.

(al) Set the thrust control lever of engine 2 to the THRUST SET position.

Result:

1 The voice message "LANDING GEAR" stops.

(am) Set the flap control lever to the 45° position.

Result:

1 The voice message "LANDING GEAR" starts.

(an) Push the MASTER WARNING CANCEL switch.

Result:

1 The voice message "LANDING GEAR" stays on. Push the LG WRN CUTOUT switch and the voice message stays on. Close the LDG GEAR IND 1 circuit breaker and the voice message "LANDING GEAR" stops. Open the LDG GEAR IND 1 circuit breaker and the voice message "LANDING GEAR" starts. Close the LDG GEAR IND 2 circuit breaker and the voice message "LANDING GEAR" stops.

(ao) Set the flap control lever to the 0° position and close the FLAP 1 and FLAP 2 circuit breakers.

K. Follow-on

SUBTASK 842-002-A

(1) Make sure that the FDR circuit breaker is closed.



EMB145 - EMB135

AIRCRAFT
MAINTENANCE MANUAL

- (2) On the Circuit Breaker Panel, close the LDG GEAR IND 1 circuit breaker.
- (3) Remove any metallic target (adhesive) attached in front of the WOW (WOW 1 and WOW 2) proximity switches (left or right MLG).
- (4) For aircraft POST-MOD [SB145-32-0036](#), remove the safety pin of the NLG door solenoid valve ([AMM TASK 32-00-02-910-801-A/200](#)).
- (5) Deenergize the aircraft ([AMM TASK 20-40-01-860-801-A/200](#)).
- (6) Move the thrust control lever of engine 1 and engine 2 to the IDLE position.
- (7) Remove the marks from the control pedestal.

EFFECTIVITY: ALL

Landing-Gear Warning System - Operational Check
Figure 501



