

## EXTENSION AND RETRACTION - ADJUSTMENT/TEST

*EFFECTIVITY: ALL*

### 1. General

- A. This section gives the procedures to do the operational check of the normal operation of the extension and retraction 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
32-30-00-700-801-A	EXTENSION AND RETRACTION SYSTEM - OPERATIONAL CHECK	ALL

TASK 32-30-00-700-801-A

EFFECTIVITY: ALL

## 2. EXTENSION AND RETRACTION SYSTEM - OPERATIONAL CHECK

### A. General

- (1) This task gives the procedures to do the operational check of the normal operation of the extension and retraction system.

### B. References

REFERENCE	DESIGNATION
<a href="#">AMM SDS 23-40-00/1</a>	
AMM TASK 07-10-00-500-801-A/200	-
AMM TASK 07-10-00-500-802-A/200	-
<a href="#">AMM TASK 20-40-01-860-801-A/200</a>	ENERGIZATION OF THE AIRCRAFT WITH AN EXTERNAL POWER SOURCE
<a href="#">AMM TASK 29-10-00-860-801-A/200</a>	HYDRAULIC SYSTEM - PRESSURIZATION WITH HTS
<a href="#">AMM TASK 32-00-01-910-801-A/200</a>	LG SAFETY PIN - INSTALLATION AND REMOVAL
FIM TASK 32-32-00-810-802-A	-

### C. Zones and Accesses

Not Applicable

### D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
<a href="#">GSE 044</a>	Headset ramp	For communications	

### 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	Area where the LG operates

### I. Preparation

**SUBTASK 841-002-A**

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

- (2) Isolate the area of landing gear operation (RH MLG, LH MLG, and NLG) with fences.
- (3) Remove the landing gear safety pins ( [AMM TASK 32-00-01-910-801-A/200](#)).
- (4) Make sure that the vanes of the AOA sensors are in the horizontal position.
- (5) Make sure that the flap selector lever is in the 0-degree position.
- (6) Energize the aircraft with External DC Power Supply ( [AMM TASK 20-40-01-860-801-A/200](#)).
- (7) Connect the ramp interphone ([AMM SDS 23-40-00/1](#)).
- (8) Pressurize hydraulic system 1 only ( [AMM TASK 29-10-00-860-801-A/200](#)), until the hydraulic accumulator is charged, as follows:
  - (a) Charge for 2.5 minutes (minimum).  
Then do the steps below.
- (9) On the Circuit Breaker Panel, make sure that the IND 1, IND 2, CMD, DOOR CMD, DOWN OVRD and AIR/GND A, B, C, and D CIRCUIT breakers are closed.
- (10) On the EICAS display, make sure that the LG/LEVER DISAGREE warning message and LG AIR/GND FAIL caution message are not shown.
- (11) On the EICAS, make sure that the three legs downlock indications show DN with green letters.
- (12) On the RMU Engine Backup page 2, make sure that the LG DN LOCKED message is shown.

J. Operationally Check of the Extension and Retraction System ([Figure 501](#))

*SUBTASK 710-002-A*

**WARNING: MAKE SURE THAT THERE ARE NO PERSONS AND EQUIPMENT IN THE LANDING GEAR AREA.**

**WARNING: BEFORE YOU ENERGIZE OR DEENERGIZE THE AIRCRAFT WHEN IT IS ON JACKS AND THE LANDING GEARS ARE LOCKED UP, MAKE SURE THAT THERE ARE NO MAINTENANCE PERSONS 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 ELECTRIC POWER IS REMOVED, THE DOORS WILL OPEN AUTOMATICALLY; OR
- IF THE NOSE GEAR DOORS ARE OPEN AND WITHOUT ELECTRIC POWER, THE DOORS WILL CLOSE AUTOMATICALLY WHEN ELECTRIC POWER IS APPLIED.

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

- (1) Do a check of the normal operation of the extension and retraction system.
  - (a) Set the landing gear control lever to the UP position.

Result:

- 1 The landing gear legs unlock down, and the gear indications on the EICAS changes to cross-hatched box in amber color.
- 2 On the RMU Engine Backup page 2, the LG DN LOCKED message goes out of view.
- 3 The landing gear legs lock up and the gear indications on the EICAS changes to UP indication in white color.
- 4 After the nose gear is locked up, the nose wheelwell doors close.
- 5 If the doors do not close, do the troubleshooting procedures. Refer to FIM TASK 32-32-00-810-802-A.

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

Result:

- 1 The nose wheelwell doors open, the landing gear unlock up and the gear indications on the EICAS, change to cross-hatched box in amber color.
- 2 The landing gear legs lock down and the gear indications change to DN position in green color.
- 3 On the RMU Engine Backup page 2, the LG DN LOCKED message comes into view.

- (2) Do step J.(1) again.

- (3) Before you do the step (4) below, stop until the hydraulic accumulator is charged. Refer to paragraph I.(6).(a).

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

- (a) Monitor the retraction time of the landing gear. It must be 13 seconds maximum.

- (b) If the retraction time of the landing gear is out of specified, do the steps below:

- 1 Make sure that the uplock pin turns freely when you move it manually (Figure 502).

**NOTE:** If the uplock pin does not turn freely, you must remove it, clean the parts and install it again (AMM TASK 32-20-01-000-802-A/400 and AMM TASK 32-20-01-400-802-A/400).

- 2 Do the step J.(4) again.

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

**K. Follow-on**

**SUBTASK 842-002-A**

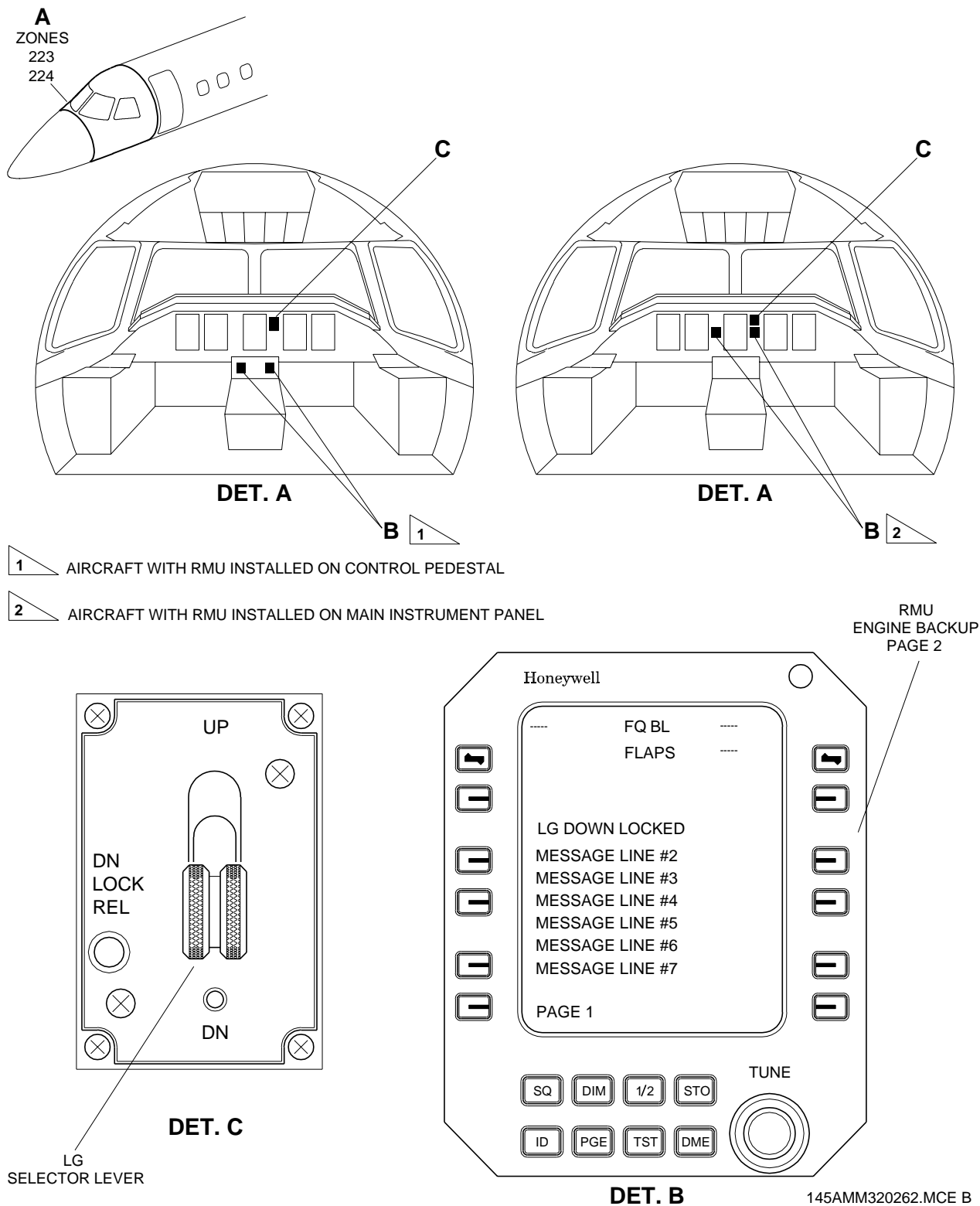
- (1) Release pressure from the hydraulic system 1 ( [AMM TASK 29-10-00-860-801-A/200](#)).
- (2) Deenergize the aircraft ( [AMM TASK 20-40-01-860-801-A/200](#)).
- (3) Install the landing gear safety pins ( [AMM TASK 32-00-01-910-801-A/200](#)).
- (4) Remove the fences.

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

EFFECTIVITY: ALL

LG Selector Lever and RMU page 2 - Location

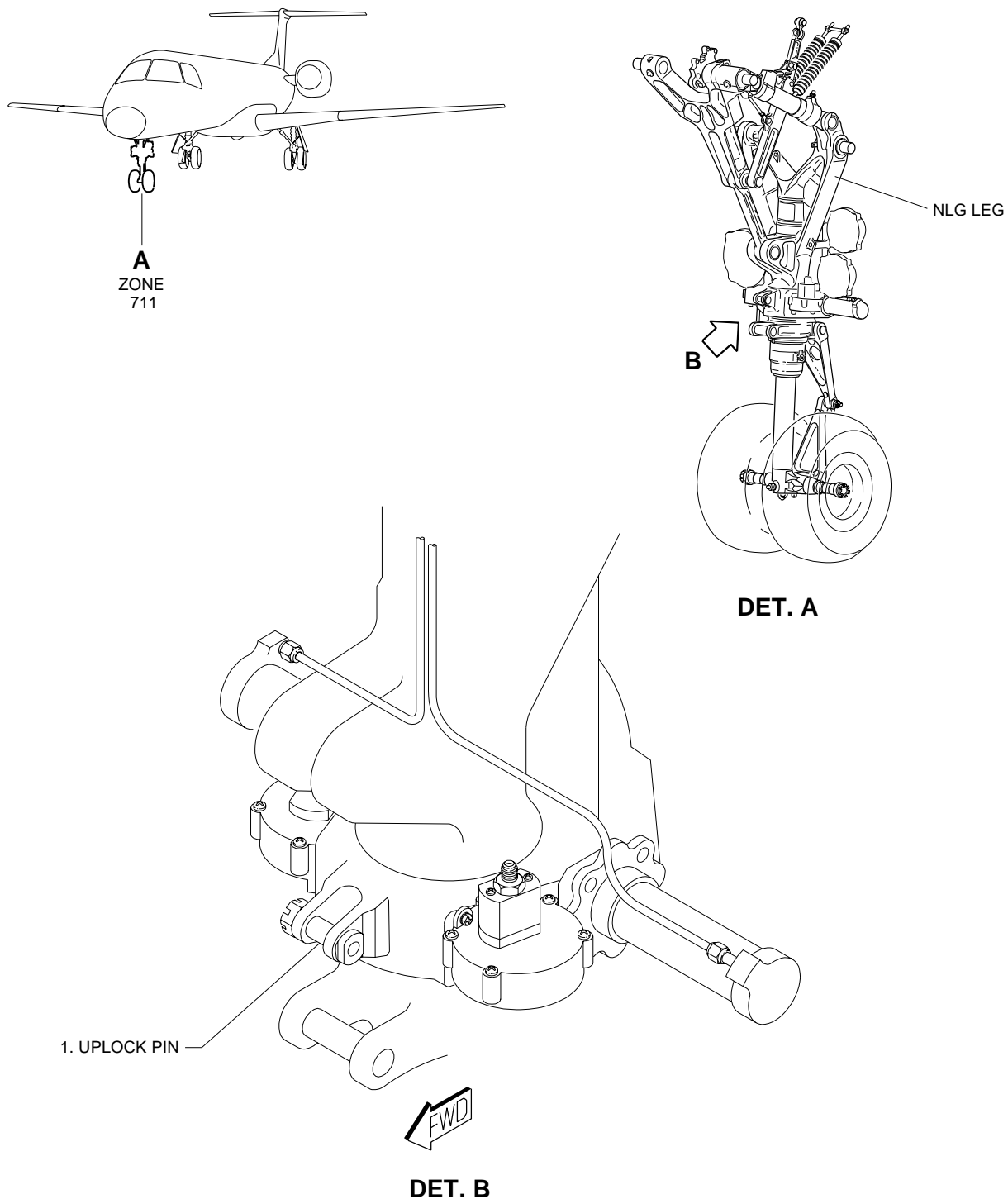
Figure 501



EFFECTIVITY: ALL

Nose Landing Gear - Uplock Pin

Figure 502



EM145AMM320717A.DGN

