



EMB145 - EMB135

AIRCRAFT  
MAINTENANCE MANUAL

**NOSE LANDING GEAR UPLock BOX - REMOVAL/INSTALLATION**

EFFECTIVITY: ALL

1. General

- A. This section gives the procedure to remove/install the nose landing gear (NLG) uplock box.
- B. The access to the NLG uplock box is got through the NLG compartment.
- C. 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
32-33-07-000-801-A	NLG UPLock BOX - REMOVAL	ALL
32-33-07-400-801-A	NLG UPLock BOX - INSTALLATION	ALL



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TASK 32-33-07-000-801-A

EFFECTIVITY: ALL

2. NLG UPLock BOX - REMOVAL

A. General

(1) This task gives the procedures to remove the NLG uplock box.

B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-01/100	-
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
SB145-32-0036	-

C. Zones and Accesses

Not Applicable

D. Tools and Equipment

Not Applicable

E. Auxiliary Items

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Rubber Gloves, Phosphate Ester-Base, Fluid-Resistant	Protection for the hands	1
Commercially available	Rubber Goggles, Phosphate Ester-Base, Fluid-Resistant	Protection for the eyes	1
Commercially available	Drip Pan	To collect the hydraulic fluid when you disconnect the hydraulic line	1

F. Consumable Materials

Not Applicable

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Nose gear compartment

I. Preparation

**SUBTASK 841-002-A**

- (1) 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](#)).
- (2) 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](#)).
- (3) Disconnect the electrical connectors from the LG uplock proximity switches.
- (4) Make sure that the landing gear safety pins are installed ([AMM TASK 32-00-01-910-801-A/200](#)).
- (5) On the circuit breaker panel, open the ELEC PUMP 1 and CMD circuit breakers and attach a DO-NOT-CLOSE tag to them.
- (6) Control the rudder to the left and to the right until the pressure of the hydraulic system shows zero PSI on the EICAS.
- (7) Open access door 114CR of the nose hydraulic compartment (AMM MPP 06-41-01/100).
- (8) Release the pressure of the PAX door/LDG gear accumulator, installed in the nose hydraulic compartment. For this, open the discharge valve and monitor the pressure gage until it shows the nitrogen precharge.

J. Removal ([Figure 401](#))

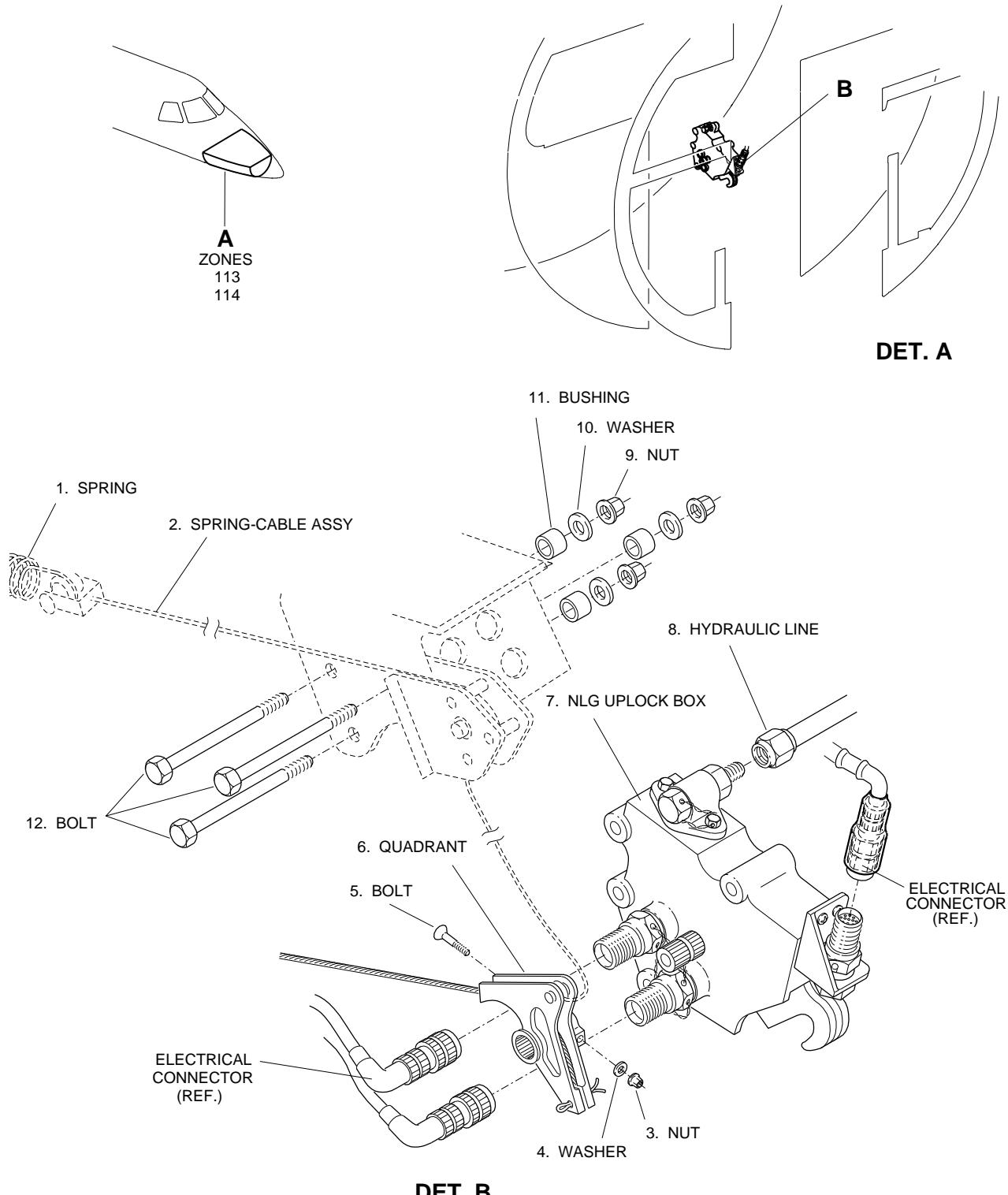
**SUBTASK 020-002-A**

- (1) Release the spring (1) from the spring-cable assembly (2).
- (2) Remove the nut (3), washer (4), and bolt (5) from the quadrant (6).
- (3) Remove the quadrant (6) from the NLG uplock box (7).
- (4) Disconnect the hydraulic line (8).
- (5) Remove the nuts (9), washers (10), bushing (11), and bolts (12) from the NLG uplock box (7).
- (6) Remove the NLG uplock box (7).

**EFFECTIVITY: ALL**

NLG Uplock Box - Removal/Installation

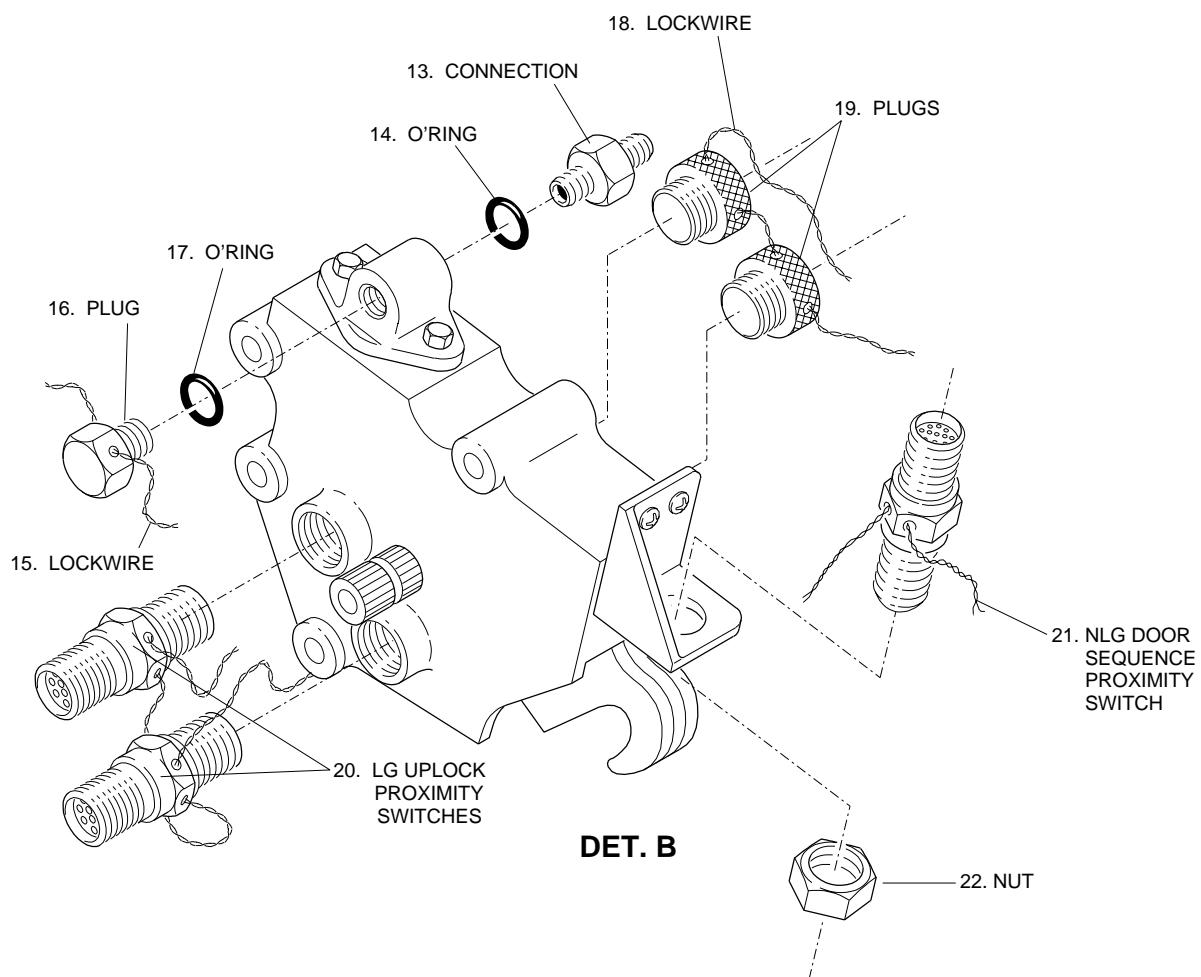
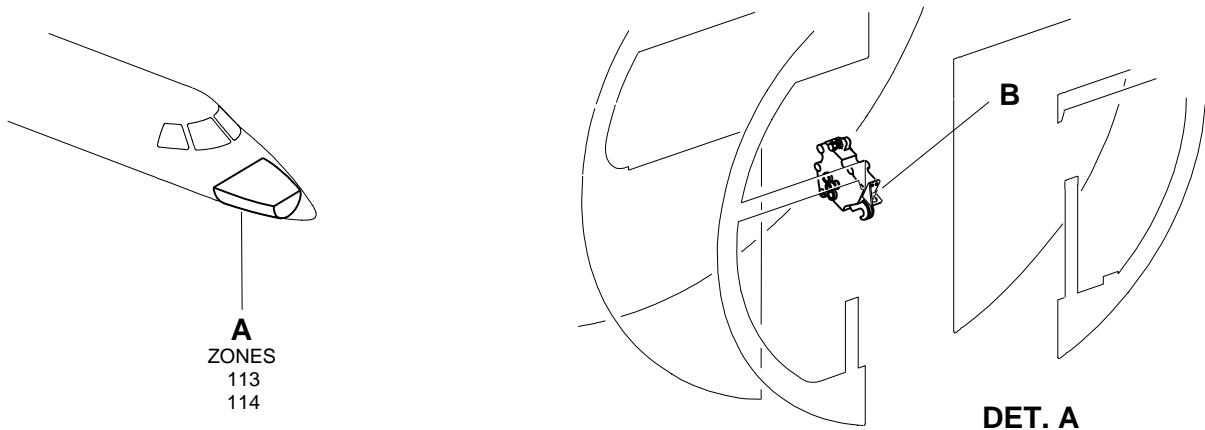
Figure 401



**EFFECTIVITY: ALL**

Connections of the NLG Uunlock Box - Removal/Installation

Figure 402



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TASK 32-33-07-400-801-A

EFFECTIVITY: ALL

## 3. NLG UPLOCK BOX - INSTALLATION

### A. General

(1) This task gives the procedures for installation of the NLG uplock box.

### B. References

REFERENCE	DESIGNATION
AMM TASK 29-10-00-860-803-A/200	HYDRAULIC SYSTEM - BLEED OF AIR
AMM TASK 32-00-02-910-801-A/200	SAFETY PIN OF THE NLG DOORS SOLENOID VALVE - INSTALLATION AND REMOVAL
AMM TASK 32-30-00-700-801-A/500	EXTENSION AND RETRACTION SYSTEM - OPERATIONAL CHECK
AMM TASK 32-34-00-700-801-A/500	NLG EMERGENCY EXTENSION - OPERATIONAL AND FUNCTIONAL CHECKS
AMM TASK 32-34-03-700-801-A/500	FREE-FALL CONTROL CABLES - CHECK
AMM TASK 32-44-02-600-801-A/300	EMERGENCY/PARKING BRAKE ACCUMULATOR - CHARGE
AMM TASK 32-61-01-000-801-A/400	UPLOCK PROXIMITY SWITCH - REMOVAL
AMM TASK 32-61-01-400-801-A/400	UPLOCK PROXIMITY SWITCH - INSTALLATION
IPC 32-33-07	NLG UPLOCK BOX
SB145-32-0036	-

### C. Zones and Accesses

Not Applicable

### D. Tools and Equipment

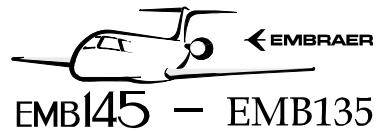
Not Applicable

### E. Auxiliary Items

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Rubber Gloves, Phosphate Ester-Base, Fluid-Resistant	Protection for the hands	1
Commercially available	Rubber Goggles, Phosphate Ester-Base, Fluid-Resistant	Protection for the eyes	1

### F. Consumable Materials

SPECIFICATION (BRAND)	DESCRIPTION	QTY
MIL-L-87177	Lektro-Tech Super Corr-B-12350	As necessary



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G. Expendable Parts

ITEM	IPC REFERENCE (VENDOR REFERENCE)	QTY
O-rings	IPC 32-33-07	2
Lockwire	IPC 32-33-07	AR

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Nose gear compartment

I. Preparation (Figure 402)

SUBTASK 841-003-A

- (1) Remove the connection (13) with the related O-ring (14) from the used NLG uplock box.
- (2) Remove the lockwire (15) and plug (16) with the related O-ring (17) from the used NLG uplock box.
- (3) Discard the O-rings removed in steps (1) and (2).
- (4) Remove the lockwire (18) and plugs (19) from the used NLG uplock box.
- (5) Install the connection (13) with the related new O-rings (14) in the position where you will connect the hydraulic line.
- (6) Install the plug (16) with the related new O-rings (17).
- (7) Safety the plug (16).
- (8) Remove the LG uplock proximity switches (20) and (21) from the used NLG uplock box. Then install them in the position where you will connect the electrical connectors ([AMM TASK 32-61-01-000-801-A/400](#)) and ([AMM TASK 32-61-01-400-801-A/400](#)).  
**NOTE:** Use nut (22) to attach the NLG door-sequence proximity switch (21).
- (9) Install the plugs (19). Then safety them.

J. Installation (Figure 401)

SUBTASK 420-002-A

- (1) Put the NLG uplock box (7) on its support.
- (2) Install the bolts (12), bushing (11), washers (10), and nuts (9).
- (3) Put the quadrant (6) on the shaft of the NLG uplock box (7).
- (4) Install the bolt (5), washer (4), and nut (3).
- (5) Connect the hydraulic line (8).
- (6) Connect the spring (1) to the spring-cable assembly (2).



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K. Follow-on

SUBTASK 842-002-A

- (1) Connect the electrical connectors to the LG-uplock proximity switches.

**NOTE:** Before the installation of the connector, apply the Lektro-Tech Super Corr-B-12350 into the plug connector to prevent corrosion and to clean the contacts.

- (2) Check the tension of the cable ([AMM TASK 32-34-03-700-801-A/500](#)).
- (3) Pressurize the Emergency/Parking brake accumulator ([AMM TASK 32-44-02-600-801-A/300](#)).
- (4) On the circuit breaker panel, close the ELEC PUMP 1 and CMD circuit breakers and remove the DO-NOT-CLOSE tag from them.
- (5) Bleed the air from the hydraulic system lines ([AMM TASK 29-10-00-860-803-A/200](#)).
- (6) 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](#)).
- (7) Do the functional check of the LDG emergency extension ([AMM TASK 32-34-00-700-801-A/500](#)).
- (8) Do the operational check of the landing gear (extension/retraction cycle). Make sure that there are no leaks in the NLG uplock box ([AMM TASK 32-30-00-700-801-A/500](#)).
- (9) Make sure that the “LG NOSE UP PROXIMITY SW FAIL” message is not shown on the CMC.