

## FEEDBACK UNIT (POTENTIOMETER) - REMOVAL/INSTALLATION

*EFFECTIVITY: ALL*

### 1. General

- A. This section gives the instructions to remove and install the feedback unit (potentiometer) of the NLG.
- 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
32-50-07-000-801-A	FEEDBACK UNIT (POTENTIOMETER) - REMOVAL	ALL
32-50-07-400-801-A	FEEDBACK UNIT (POTENTIOMETER) - INSTALLATION	ALL

TASK 32-50-07-000-801-A

EFFECTIVITY: ALL

## 2. FEEDBACK UNIT (POTENTIOMETER) - REMOVAL

### A. General

- (1) This procedure gives the instructions to remove the feedback unit (potentiometer) of the nose landing gear.
- (2) If the electrical connector (6) presents signs of damage, contamination or corrosion, do the maintenance procedures on the electrical connector as follows:

To clean the electrical connector, refer to WM 20-50-00/201.

To replace the electrical connector, use the repair kit. Refer to IPC 32-50-00. Obey the instructions of the applicable Wiring Manual, Chapter WM 20-50-00/201, Standard Practices.

### B. References

REFERENCE	DESIGNATION
<a href="#">AMM TASK 29-10-00-860-802-A/200</a>	HYDRAULIC SYSTEM - PRESSURIZATION WITH EMDP
<a href="#">AMM TASK 32-00-01-910-801-A/200</a>	LG SAFETY PIN - INSTALLATION AND REMOVAL
<a href="#">AMM TASK 32-00-02-910-801-A/200</a>	SAFETY PIN OF THE NLG DOORS SOLENOID VALVE - INSTALLATION AND REMOVAL
<a href="#">AMM TASK 32-60-00-910-801-A/200</a>	LANDING GEAR PROXIMITY SWITCH AND HARNESS ELECTRICAL CONNECTORS - RESTORATION AND PROTECTION
IPC 32-50-00	NOSE WHEEL STEERING SYSTEM
<a href="#">S.B.145-32-0036</a>	-
WM 20-50-00/201	-

### 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	NLG

I. Preparation

*SUBTASK 841-002-A*

- (1) On the Circuit Breaker Panel, open the STEER circuit breaker and attach a DO-NOT-CLOSE tag to it.
- (2) Make sure that the safety pins of the landing gears are installed ( [AMM TASK 32-00-01-910-801-A/200](#)).
- (3) On aircraft PRE-MOD. [S.B.145-32-0036](#), make sure that the pressure in hydraulic system No. 1 is fully released ( [AMM TASK 29-10-00-860-802-A/200](#)).
- (4) On aircraft POST-MOD. [S.B.145-32-0036](#), install the safety pin of the NLG door solenoid valve ([AMM TASK 32-00-02-910-801-A/200](#)).

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

*SUBTASK 020-002-A*

- (1) Remove the sealant (4). Refer to [Figure 401](#).

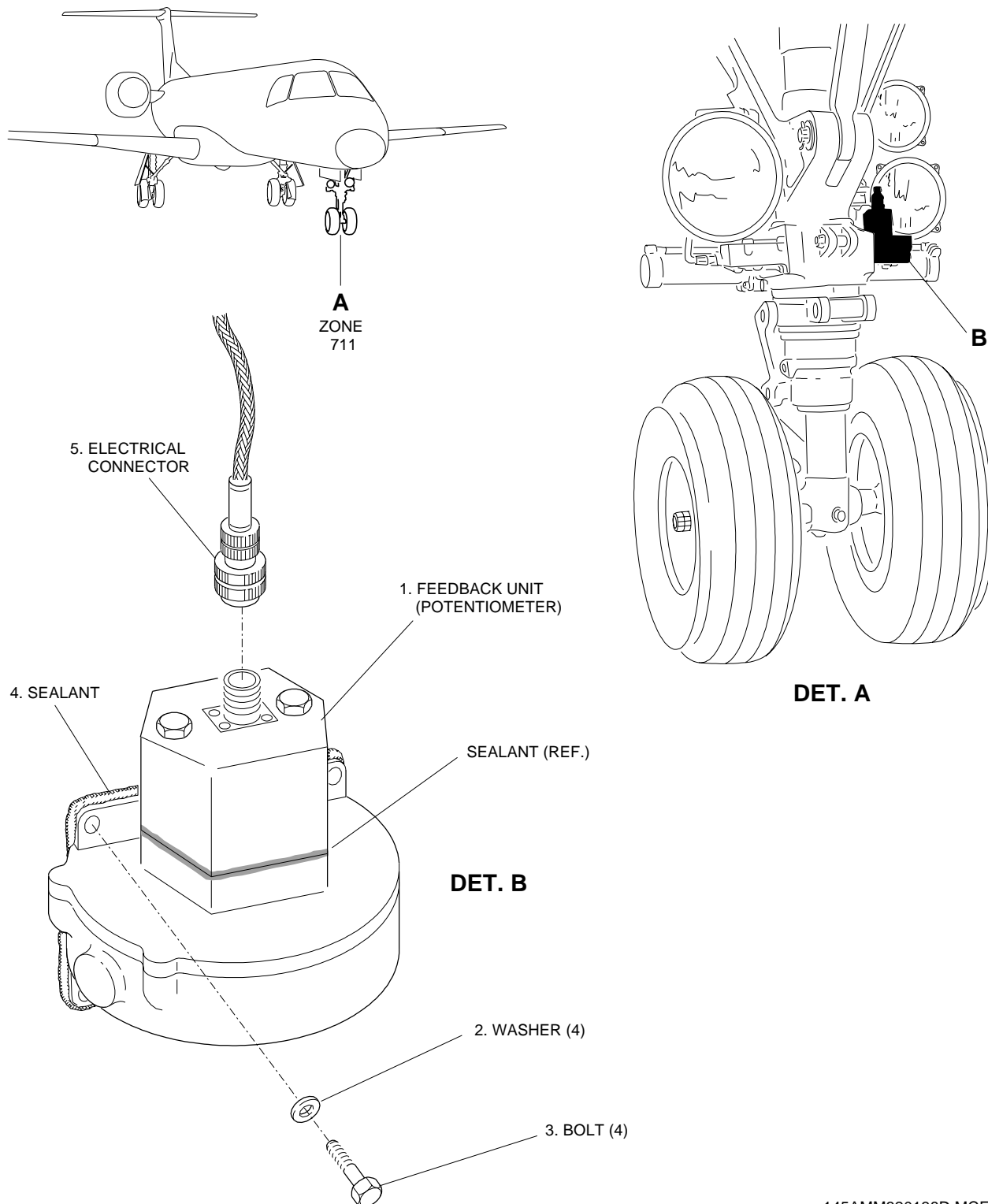
CAUTION: BE CAREFUL WHEN YOU REMOVE THE HEAT-SHRINKABLE BOOT TO PREVENT DAMAGE TO THE ELECTRICAL CABLE AND ITS CONNECTOR.

- (2) For connector that already has heat-shrinkable boot, remove it with a cutting tool.
- (3) Disconnect the electrical connector P0054 (5). Refer to [Figure 401](#).
- (4) If the electrical connector (5) presents signs of damage, contamination or corrosion, do the maintenance procedures on the electrical connector. Refer to [AMM TASK 32-60-00-910-801-A/200](#).
- (5) Remove the bolts (3) and washers (2). Refer to [Figure 401](#).
- (6) Remove the feedback unit (1). Refer to [Figure 401](#).

EFFECTIVITY: ALL

Feedback Unit (Potentiometer) - Removal/Installation

Figure 401

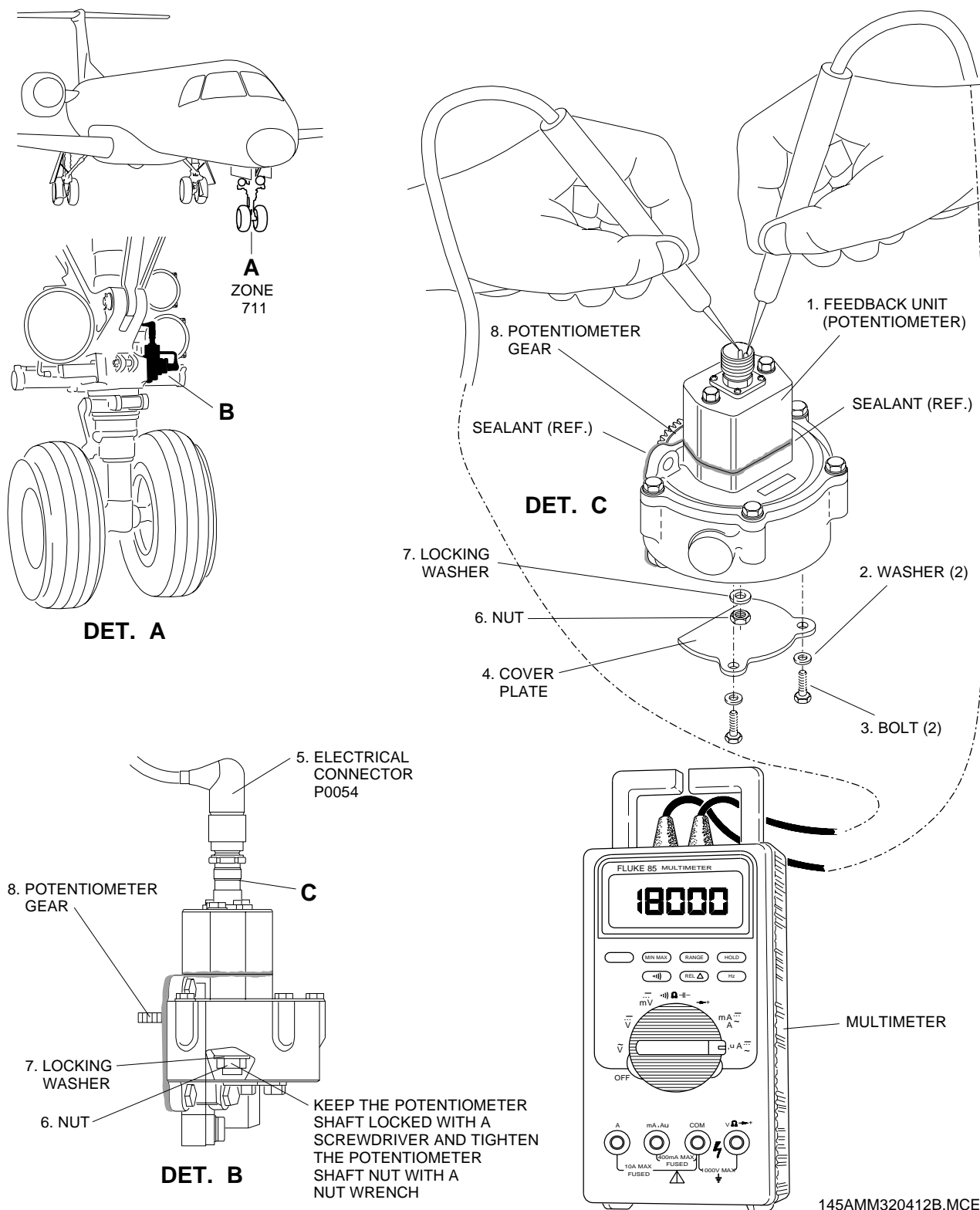


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EFFECTIVITY: ALL

Feedback Unit (Potentiometer) - Preassemblage/Installation

Figure 402



TASK 32-50-07-400-801-A

EFFECTIVITY: ALL

### 3. FEEDBACK UNIT (POTENTIOMETER) - INSTALLATION

#### A. General

(1) This procedure gives the instructions to install the feedback unit (potentiometer) of the NLG.

#### B. References

REFERENCE	DESIGNATION
AMM TASK 32-00-02-910-801-A/200	SAFETY PIN OF THE NLG DOORS SOLENOID VALVE - INSTALLATION AND REMOVAL
AMM TASK 32-50-00-700-802-A/500	NOSE WHEEL STEERING SYSTEM - QUICK ADJUSTMENT
AMM TASK 32-60-00-910-801-A/200	LANDING GEAR PROXIMITY SWITCH AND HARNESS ELECTRICAL CONNECTORS - RESTORATION AND PROTECTION
S.B.145-32-0036	-

#### C. Zones and Accesses

Not Applicable

#### D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
GSE 050	Multimeter - digital	To do the check	

#### E. Auxiliary Items

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

#### F. Consumable Materials

SPECIFICATION (BRAND)	DESCRIPTION	QTY
MIL-PRF-23827	Aeroshell Grease 7	AR
MIL-PRF-23827	Aeroshell Grease 33 (alternative to Aeroshell Grease 7)	AR
SAE AMS 3277, Type I, Class B2	Sealant PR1826B2ALO	AR
MIL-L-87177	Lektro-Tech Super Corr-B-12350	AR

#### G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	NLG

I. Installation (Figure 401) (Figure 402)

*SUBTASK 420-002-A*

- (1) Look to see if the feedback-unit cover plate (4) is locked and sealed. If it is, go to step (3). If it is not, do the step that follows. Refer to DET. C, (Figure 402).
- (2) Do the preassemblage of the feedback unit (potentiometer) (1): Refer to DET. C, (Figure 402).
  - (a) Remove the bolts (3), washer (2), and cover plate (4) and tighten the potentiometer shaft nut (6). Use a screwdriver not to let the shaft turn together.
  - (b) Lock the nut (6) with the locking washer (7). Bend one tab up and the other tab down.
  - (c) Install the cover plate (4) and washer (2) and tighten the bolt (3).
  - (d) Apply PR1826B2ALO to the cover plate (4).

NOTE: Sealant P/S 870B-2 or sealant AC-665 B-2 can be used as alternatives to sealant PR1826B2ALO. Twenty-four hours after the application of these alternative sealants, apply a layer of varnish 683-3-2/X-310A to them.

- (e) Safety the bolts (3) and apply PR1826B2ALO.

NOTE: Do not apply PR1826B2ALO to the vent holes of the bolts because unwanted grease can come out of these holes.

- (3) On electrical connector P0054 (5), measure the difference of the resistance of the potentiometer between pins 1 and 2 and pins 2 and 3. Write down the measured values. The difference must be  $r_{12} - r_{23}$  less than or equal to 100 Ohms. Refer to (Figure 401) and (Figure 402).
- (4) Manually turn the potentiometer gear (8) clockwise or counterclockwise to adjust the resistance difference. Let the potentiometer gear (8) stay in a position at which the difference is less than or equal 100 Ohms. Refer to DET. C of (Figure 402).
- (5) Put the feedback unit (potentiometer) (1) in position on the NLG strut. Refer to (Figure 401)

CAUTION: YOU MUST USE THE GREASE THAT IS USED IN THE FEEDBACK UNIT (POTENTIOMETER). AEROSHELL GREASE 7 MUST NOT BE MIXED WITH AEROSHELL GREASE 33.

- (6) Lubricate the gearing with Aeroshell Grease 7 or Aeroshell 33 as necessary.
- (7) Record in the applicable document which the grease that you used was.
- (8) Install the washers (2) and tighten the bolts (3). Refer to (Figure 401).

**WARNING: DO NOT GET LUBRICANT AND ANTICORROSIVE FILM PN LEKTRO-TECH SUPER CORR-B-12350 IN YOUR MOUTH, EYES, OR SKIN. PUT ON PROTECTIVE SPLASH GOGGLES AND GLOVES WHEN YOU USE IT. KEEP LUBRICANT AND ANTICORROSIVE FILM PN LEKTRO-TECH SUPER CORR-B-12350 AWAY FROM SPARKS, FLAME, AND HEAT. IT IS A POISONOUS AND FLAMMABLE SUBSTANCE.**

- (9) Connect electrical connector P0054 (5). Refer to (Figure 401)

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

- (10) Do the protection of the feedback unit (potentiometer) (1) and the electrical connector (5) against corrosion. Refer to [AMM TASK 32-60-00-910-801-A/200](#) and to (Figure 401)

J. Follow-on

*SUBTASK 842-002-A*

- (1) On the circuit breaker panel, close the STEER circuit breaker and remove the DO-NOT-CLOSE tag from it.
- (2) Adjust the nose-wheel steering system ( [AMM TASK 32-50-00-700-802-A/500](#)).
- (3) Apply PR1826B2ALO sealant (4) along the contour of the flange of the feedback unit (1). Refer to (Figure 401).

**NOTE:** Sealant P/S 870B-2 or sealant AC-665 B-2 can be used as alternatives to sealant PR1826B2ALO. Twenty-four hours after the application of these alternative sealants, apply a layer of varnish 683-3-2/X-310A to them.

- (4) 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](#)).