



AIRCRAFT MAINTENANCE MANUAL

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



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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
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
AMM TASK 32-60-00-910-801-A/200	LANDING GEAR PROXIMITY SWITCH AND HARNESS ELECTRICAL CONNECTORS - RESTORATION AND PROTECTION
IPC 32-50-00	NOSE WHEEL STEERING SYSTEM
S.B.145-32-0036	-
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



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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](#).

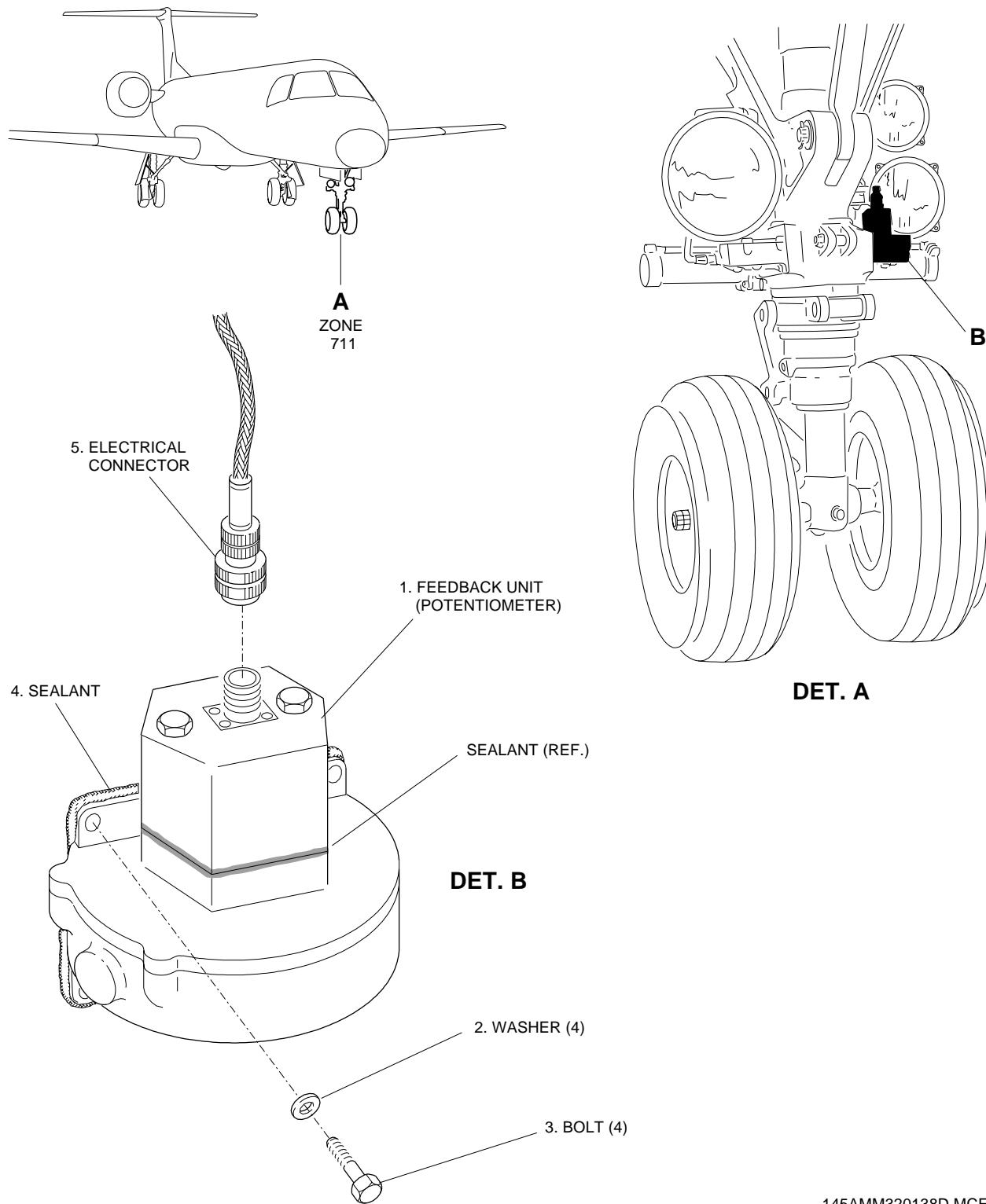
CAUTION: BE CAREFUL WHEN YOU REMOVE THE HEAT-SHRINKABLE BOOT TO PREVENT DAMAGE TO THE ELECTRICAL CABLE AND ITS CONNECTOR.

- (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

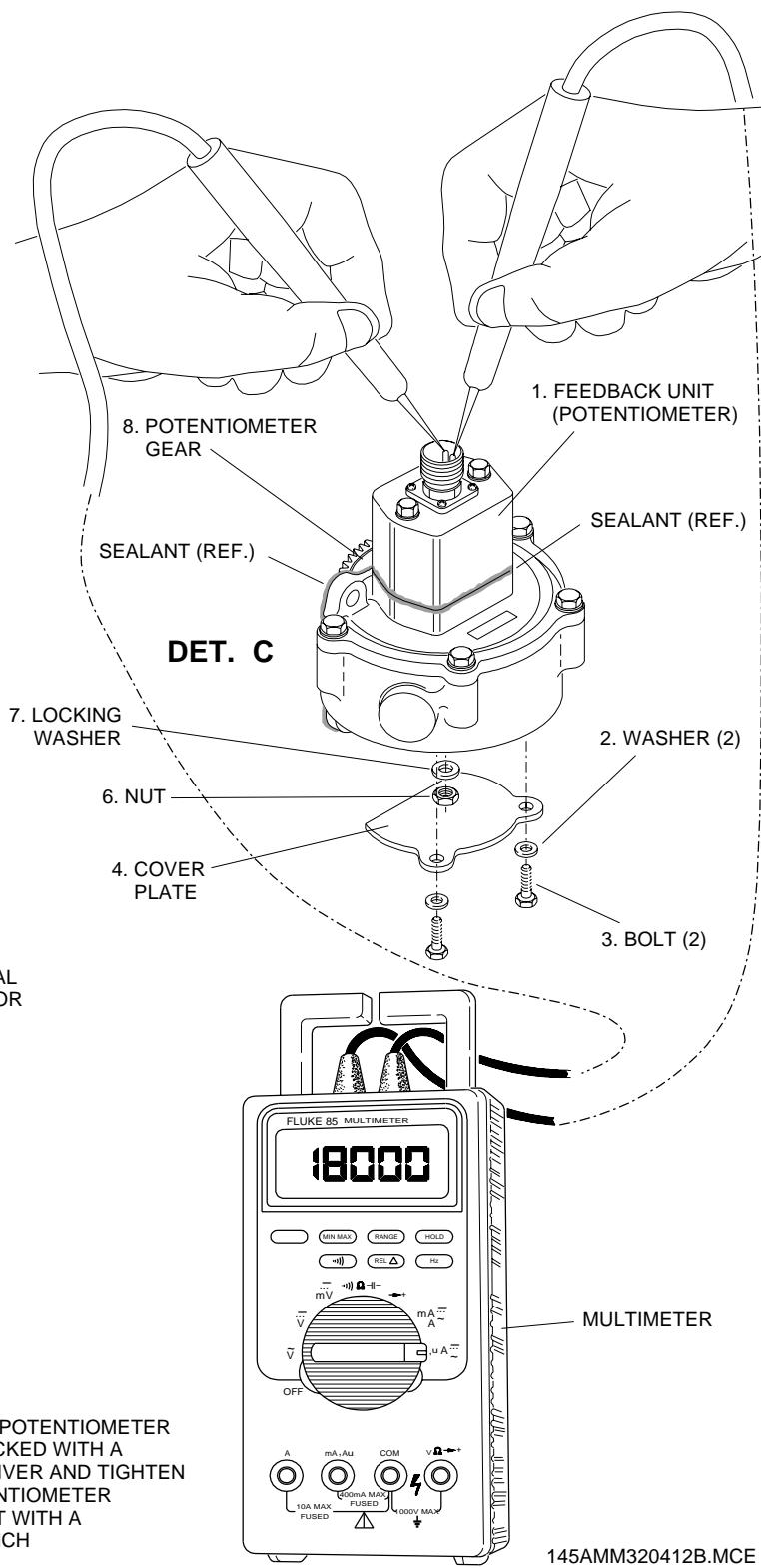
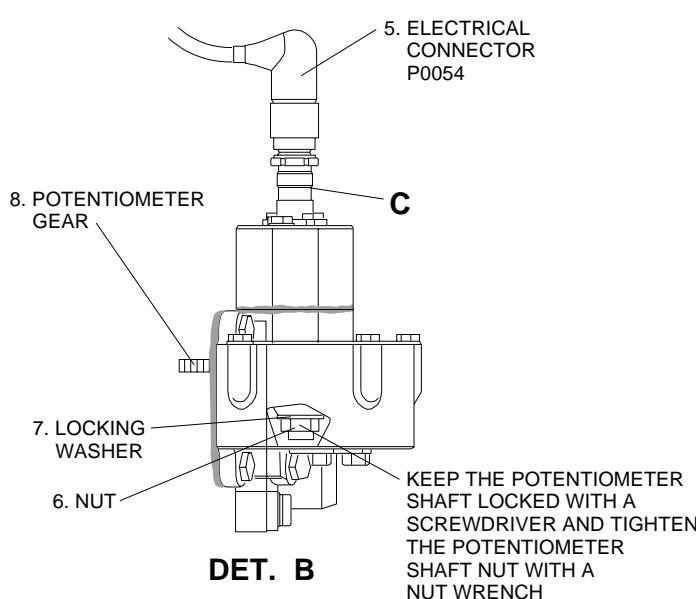
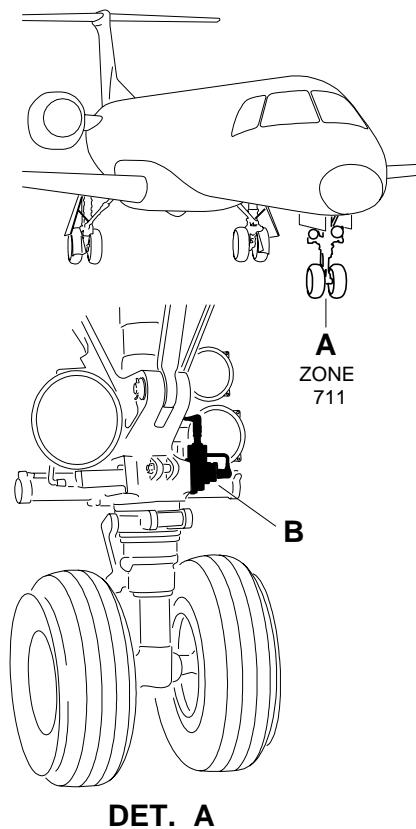


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EFFECTIVITY: ALL

Feedback Unit (Potentiometer) - Preassembly/Installation

Figure 402



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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 preassembly 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](#)).