



AIRCRAFT  
MAINTENANCE MANUAL

**AILERON NEUTRAL RECOVERY UNIT - REMOVAL/INSTALLATION**

EFFECTIVITY: ALL

1. General

- A. This section gives the procedures to remove and install the Aileron Neutral Recovery Unit (NRU).
- 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
27-11-07-000-801-A	AILERON NEUTRAL RECOVERY UNIT - REMOVAL	ALL
27-11-07-400-801-A	AILERON NEUTRAL RECOVERY UNIT - INSTALLATION	ALL



EMB145 - EMB135

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TASK 27-11-07-000-801-A

EFFECTIVITY: ALL

2. AILERON NEUTRAL RECOVERY UNIT - REMOVAL

A. General

- (1) This task gives the procedures to remove the Aileron Neutral Recovery Unit (NRU).

B. References

REFERENCE	DESIGNATION
AMM MPP 06-44-00/100	- COMPONENT LOCATION

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
551	551CB	Wing
651	651CB	Wing

D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
GSE 058	Kit, Rig Pins	To lock the aileron system in the neutral position	

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	Wing

I. Preparation

SUBTASK 841-002-A

- (1) Make sure that the aircraft is safe for maintenance.
- (2) Remove access doors 551CB and 651CB ([AMM MPP 06-44-00/100](#)).
- (3) Make sure that the aileron PCA is installed.
- (4) Install the rig pin on the wing aileron sector.



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

SUBTASK 020-002-A

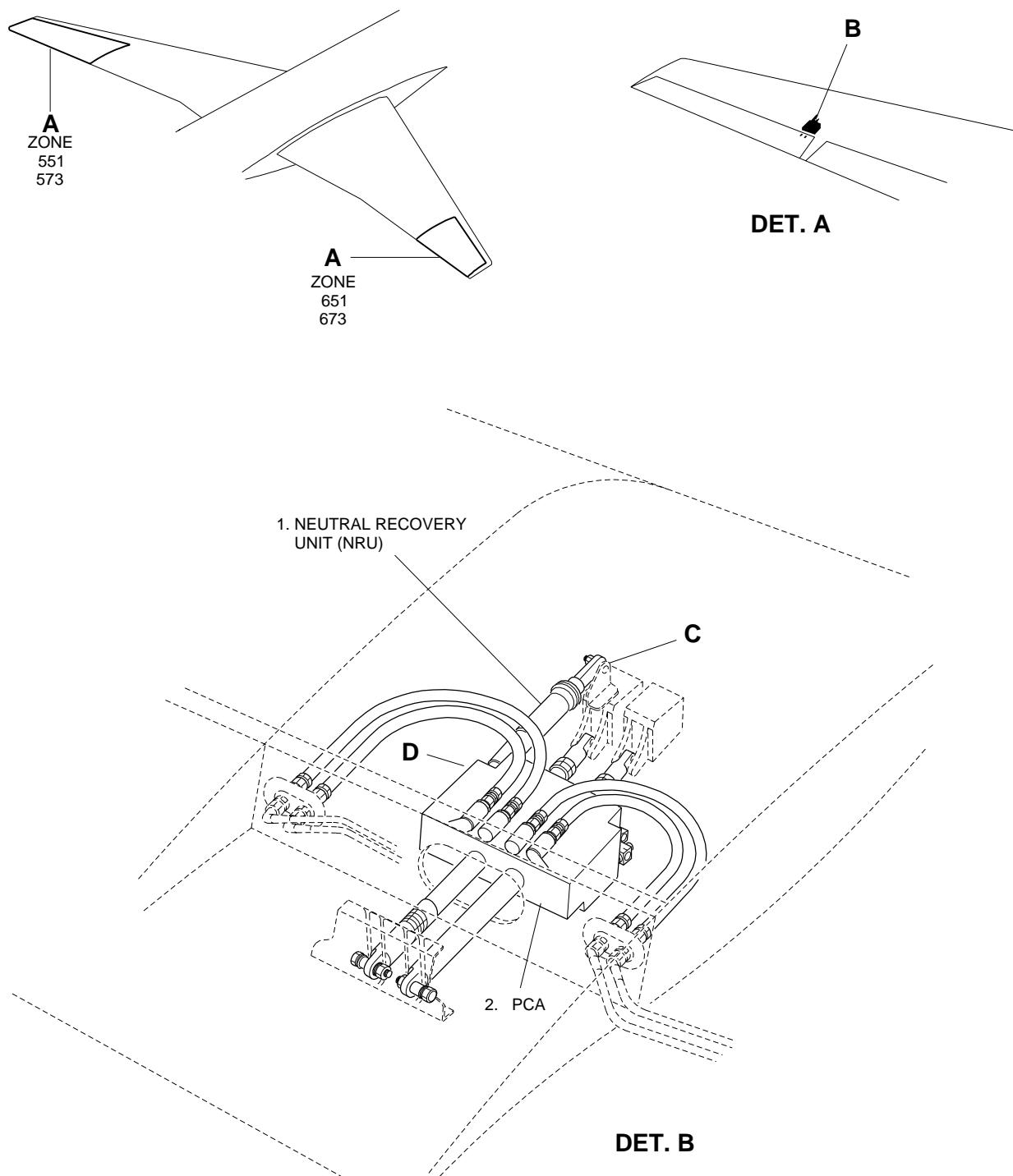
**WARNING: MAKE SURE THAT THE HYDRAULIC SYSTEM IS NOT PRESSURIZED.**

- (1) Loosen the bolt (5) and washers to remove the jumper (3).
- (2) Remove the cotter pin (8), nut (7), washers (6), bolt (16), and bushing (15) to loosen the NRU from the wing support (14).
- (3) Remove the cotter pin (9), nut (10), washers (11), bolt (13), and bushing (12) to loosen the NRU from the PCA.

**EFFECTIVITY: ALL**

Aileron Neutral Recovery Unit - Removal/Installation

Figure 401 - Sheet 1

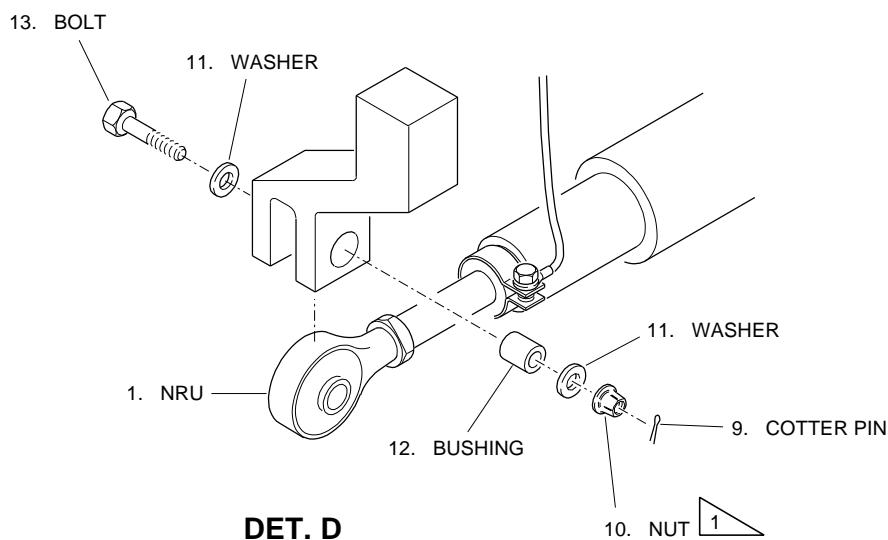
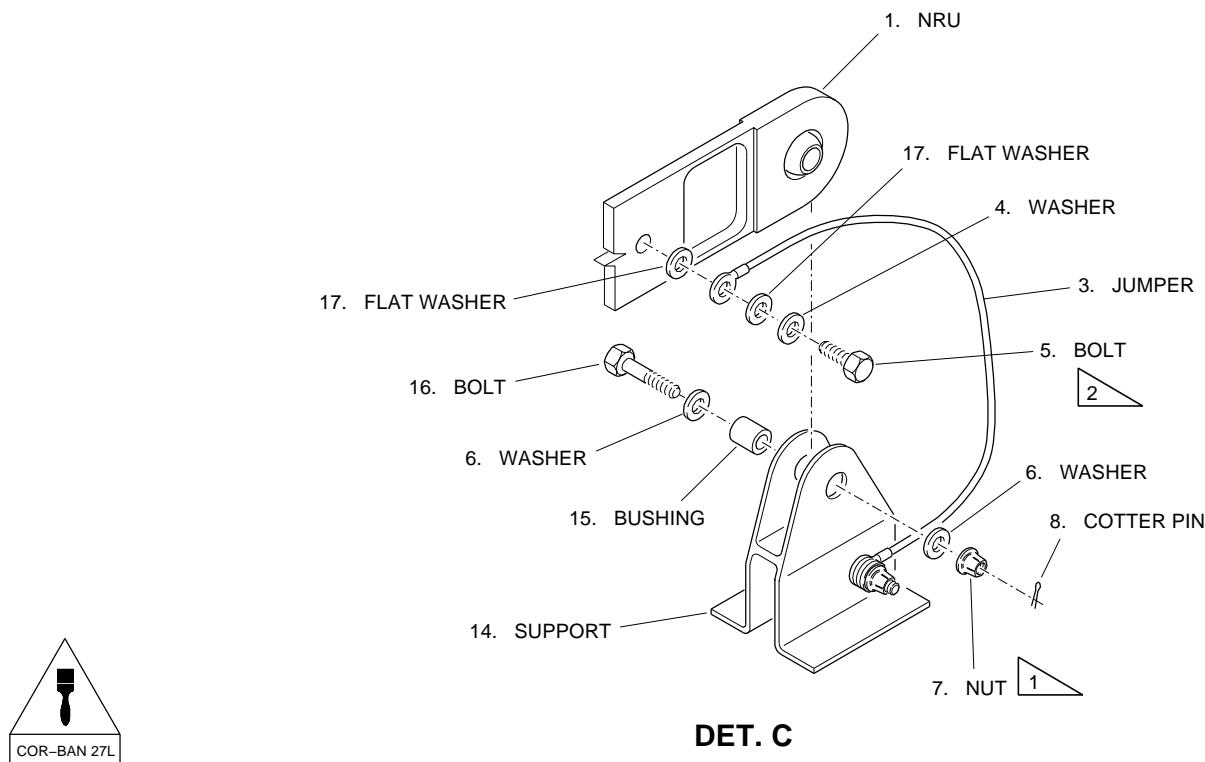


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**EFFECTIVITY: ALL**

Aileron Neutral Recovery Unit - Removal/Installation

Figure 401 - Sheet 2



 TORQUE: 1.4 – 1.7 N.m (12 – 15 lb.in)

 TORQUE: 2.8 – 3.4 N.m (25 – 30 lb.in)

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TASK 27-11-07-400-801-A

EFFECTIVITY: ALL

3. AILERON NEUTRAL RECOVERY UNIT - INSTALLATION

A. General

(1) This task gives the procedures to install the Aileron Neutral Recovery Unit (NRU).

B. References

REFERENCE	DESIGNATION
AMM MPP 06-44-00/100	- COMPONENT LOCATION
IPC 27-12-00	AILERON HYDRAULIC ACTUATION

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
551	551CB	Wing
651	651CB	Wing

D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
GSE 058	Kit, Rig Pins	To lock the aileron system in the neutral position	
Commercially available	Torque wrench (see Figure 401)	To apply the torques	

E. Auxiliary Items

Not Applicable

F. Consumable Materials

SPECIFICATION (BRAND)	DESCRIPTION	QTY
Lockwire	MS20995C41	As necessary
MEP 09-075	Corrosion-Inhibiting Compound (Cor-Ban 27L)	AR

G. Expendable Parts

ITEM	IPC REFERENCE (VENDOR REFERENCE)	QTY
Cotter pin	IPC 27-12-00	2/LRU

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Wing



I. Preparation

SUBTASK 841-003-A

- (1) Make sure that the PCA is installed and the input rod is connected to it.

J. Installation (Figure 401)

SUBTASK 420-002-A

**WARNING: MAKE SURE THAT THE HYDRAULIC SYSTEM IS NOT PRESSURIZED.**

**WARNING: BE CAREFUL WHEN YOU USE THE COR-BAN 27L CORROSION-INHIBITING COMPOUND. PUT ON SAFETY GOGGLES AND PROTECTIVE CLOTHING. DO NOT BREATHE THE GAS OR DUST. DO THE WORK IN AN AREA WHICH HAS A GOOD FLOW OF AIR. COR-BAN 27L IS POISONOUS AND HIGHLY FLAMMABLE.**

- (1) Apply corrosion-inhibiting compound COR-BAN 27L to the bolt (13). Use gloves and a brush for it.
- (2) Install the bolt (16), washers (6), bushing (15), and nut (7) to attach the NRU to the wing support (14).
- (3) Install the bolt (5) and washers to attach the jumper (3) to the NRU.
- (4) NOTE: When you connect the NRU to the PCA, do not compress the shaft of the NRU. If necessary, adjust the rod end of the NRU and lockwire it.

Install the bolt (13), washers (11), bushing (12), and nut (10) to attach the NRU to the PCA.

- (5) Apply the torque as given in Figure 401 and install the cotter pins (8) and (9).

K. Follow-on

SUBTASK 842-002-A

- (1) Remove the rig pin from the wing aileron sector.
- (2) Install access doors 551CB and 651CB ([AMM MPP 06-44-00/100](#)).

