



AIRCRAFT
MAINTENANCE MANUAL

ARTIFICIAL FEEL UNIT - ADJUSTMENT/TEST

EFFECTIVITY: ALL

1. General

- A. This section gives the procedure to do the adjustment of the artificial feel unit.
- 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).

<i>TASK NUMBER</i>	<i>DESCRIPTION</i>	<i>EFFECTIVITY</i>
27-11-06-700-801-A	ARTIFICIAL FEEL UNIT - ADJUSTMENT/ TEST	ALL



EMB145 - EMB135

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TASK 27-11-06-700-801-A

EFFECTIVITY: ALL

2. ARTIFICIAL FEEL UNIT - ADJUSTMENT/TEST

A. General

- (1) This procedure gives the instruction to adjust the artificial feel unit.

B. References

REFERENCE	DESIGNATION
AMM TASK 27-11-06-000-801-A/400	ARTIFICIAL FEEL UNIT - REMOVAL
AMM TASK 27-11-06-400-801-A/400	ARTIFICIAL FEEL UNIT - INSTALLATION
AMM TASK 29-10-00-860-801-A/200	HYDRAULIC SYSTEM - PRESSURIZATION WITH HTS

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
123	123BL	Area below the cockpit floor - LH

D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
GSE 058	Rig Pin Kit	To lock the control wheel in the neutral position	
GSE 070	Protractor, Digital	To measure the control wheel deflection	

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

I. Preparation

SUBTASK 841-002-A

- (1) Make sure that the aircraft is safe for maintenance.
- (2) Make sure that the roll trim is in the neutral position. Refer to the EICAS indication ([Figure 501](#)).

- (3) Pressurize the hydraulic system ([AMM TASK 29-10-00-860-801-A/200](#)).
- (4) On the Overhead Panel, push the AILERON SHUTOFF SYS 1 and AILERON SHUTOFF SYS 2 pushbuttons to turn on AILERON system 1 and AILERON system 2.
 - Make sure that the pushbuttons lights go out and the AIL SYS 1-2 INOP message of the EICAS display goes out of view.

J. Adjustment of the Artificial Feel Unit ([Figure 502](#)) ([Figure 503](#))

SUBTASK 720-002-A

WARNING: MAKE SURE THAT THERE ARE NO PERSON OR EQUIPMENT IN THE AILERON TRAVEL AREA.

- (1) Install GSE 070 on the pilot control wheel; use a paper masking tape ([Figure 502](#)).
- (2) Install rig pin at the pilot control wheel ([Figure 503](#)) and set the dial protractor to zero.
- (3) Remove the rig pin from the pilot control wheel.
- (4) Turn the pilot control wheel fully to the left and slowly turn it back until the control wheel stops.
- (5) Write the left remaining deflection (D_{Rleft}) shown on the dial protractor in [Table 501](#).

Table 501 - CONTROL WHEEL REMAINING DEFLECTION

	Control wheel to the left	Control wheel to the right
Remaining deflection shown on the dial protractor (degrees)	$D_{Rleft} = \underline{\hspace{2cm}}$	$D_{Rright} = \underline{\hspace{2cm}}$

- (6) Turn the pilot control wheel fully to the right and, slowly, return it until the control wheel stops.
- (7) Write the right remaining deflection (D_{Rright}) shown on the dial protractor in [Table 501](#).
- (8) The value of the right remaining deflection (D_{Rright}) must be from 1 to 2 degrees higher than the left remaining deflection (D_{Rleft}).

Table 502

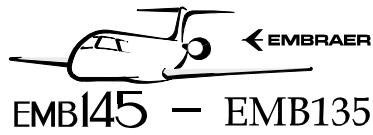
$(D_{Rright})^\circ = (D_{Rleft})^\circ + (1 \text{ to } 2)^\circ$
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- (9) If necessary, adjust the artificial feel unit as follows:
 - (a) Disconnect the AFU from the aileron torque tube ([AMM TASK 27-11-06-000-801-A/400](#)).
 - (b) Adjust the rod end of the AFU to a fitting in good condition and connect the AFU again to the aileron torque tube ([AMM TASK 27-11-06-400-801-A/400](#)).

K. Follow-on

SUBTASK 842-002-A

- (1) Remove GSE 070 from the control wheel.

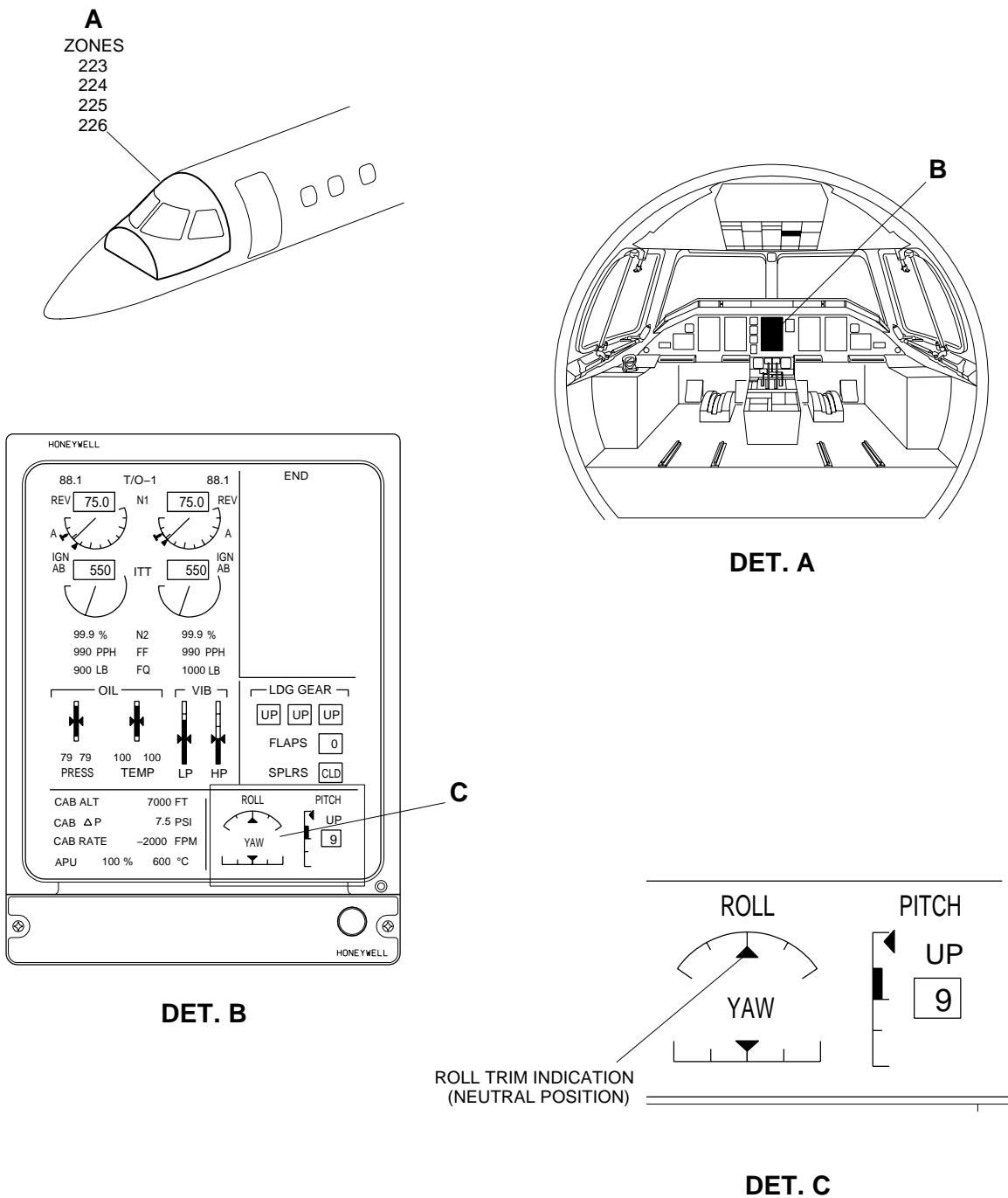


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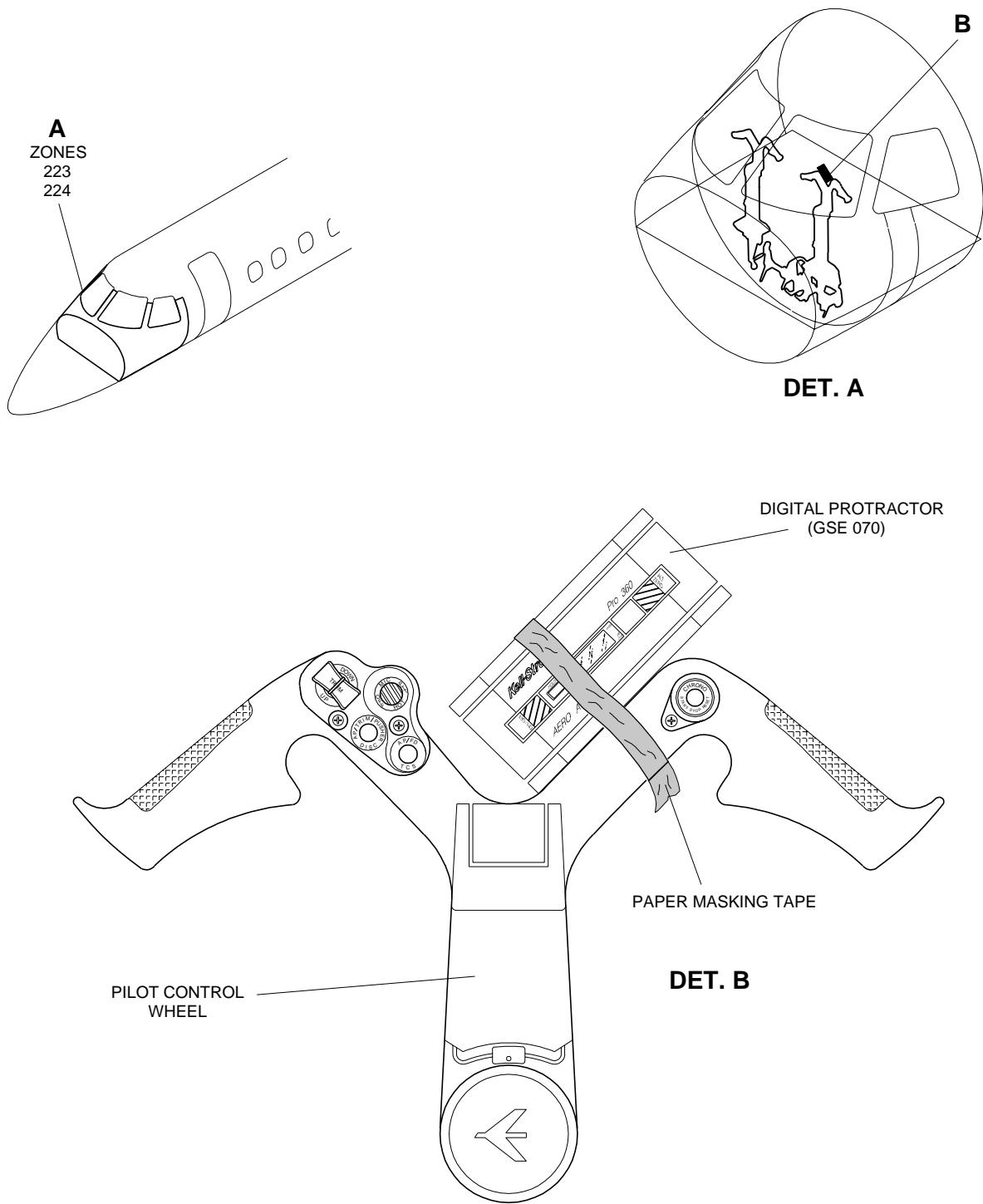
- (2) On the Overhead Panel, push the AILERON SHUTOFF SYS 1 and AILERON SHUTOFF SYS 2 pushbuttons to turn off AILERON system 1 and AILERON system 2.
 - Make sure that the pushbuttons lights to turn on and the EICAS display shows the AIL SYS 1-2 INOP caution message.
- (3) Release the pressure of the hydraulic system ([AMM TASK 29-10-00-860-801-A/200](#)).

EFFECTIVITY: ALL

 EICAS Indication - Roll Trim in Neutral Position
 Figure 501


EM145AMM270950A.DGN

EFFECTIVITY: ALL
GSE 070 - Installation
Figure 502

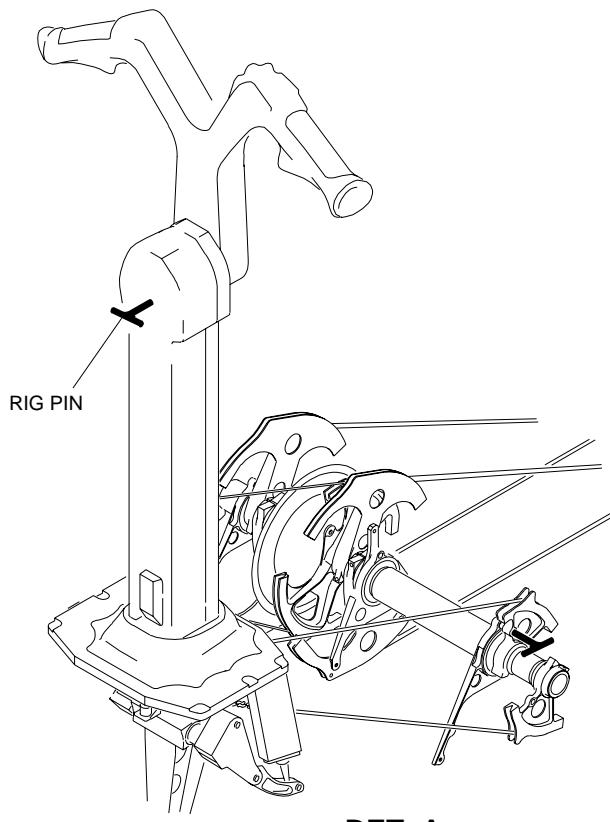
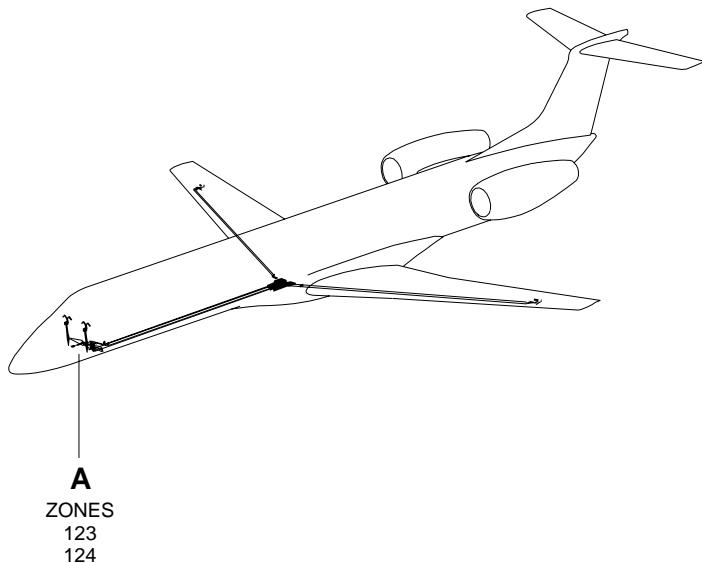


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EFFECTIVITY: ALL

Rig Pin - Installation

Figure 503



DET. A

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