



EMB145 - EMB135

AIRCRAFT
MAINTENANCE MANUAL

COCKPIT EMERGENCY EXIT - ADJUSTMENT/TEST

EFFECTIVITY: ALL

1. General

- A. This section gives the instructions to do these procedures on the cockpit emergency exits (direct-vision windows): alignment with the fuselage loft line, adjustment, and operational check.
- 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
56-11-00-700-801-A ♦	COCKPIT ESCAPE HATCHES - OPERATIONAL CHECK	ALL
56-11-00-820-801-A	COCKPIT EMERGENCY EXIT - ALIGNMENT	ALL
56-11-00-820-802-A	COCKPIT EMERGENCY EXIT - ADJUSTMENT	ALL



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TASK 56-11-00-700-801-A

EFFECTIVITY: ALL

2. COCKPIT ESCAPE HATCHES - OPERATIONAL CHECK

A. General

- (1) This task gives the procedures to do an operational check of the cockpit emergency-exit mechanism.

B. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
223		LH emergency exit
224		RH emergency exit

C. Tools and Equipment

Not Applicable

D. Auxiliary Items

Not Applicable

E. Consumable Materials

Not Applicable

F. Expandable Parts

Not Applicable

G. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	At the emergency exits

H. Operationally Check Cockpit Emergency Exit ([Figure 501](#))

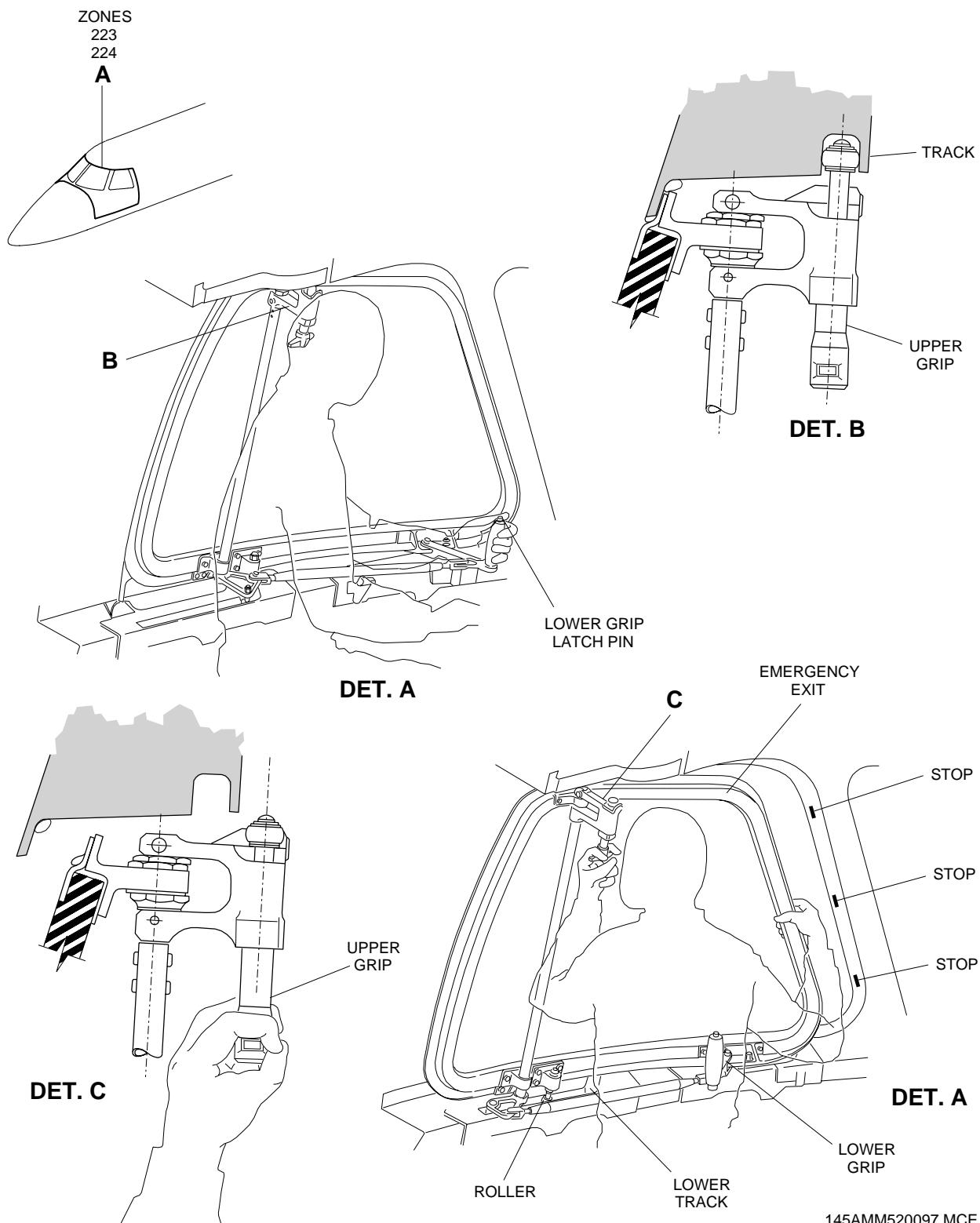
SUBTASK 710-002-A

- (1) Push the pin, installed in the lower grip top, to release the mechanism.
- (2) Move the lower grip rearward and forward while you make sure that the rollers move correctly on the tracks.
- (3) With the emergency exit windows fully rearward, pull the upper grip down and inward while you make sure that the window can be easily removed.
- (4) Install the emergency exit window on the lower track.
- (5) Put the upper grip roller on its track.
- (6) Move the lower grip forward up to its stop and latch the mechanism.

EFFECTIVITY: ALL

Cockpit Escape Hatches - Operational Check

Figure 501



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TASK 56-11-00-820-801-A

EFFECTIVITY: ALL

3. COCKPIT EMERGENCY EXIT - ALIGNMENT

A. General

(1) This task gives the procedures to align the window with the fuselage loft line.

B. References

REFERENCE	DESIGNATION
AMM SDS 56-10-00/1	
AMM TASK 56-11-02-400-801-A/400	COCKPIT EMERGENCY-EXIT RUBBER TRIM SEAL - INSTALLATION
AMM TASK 56-11-03-300-801-A/800	RUBBER TRIM SEAL - REPAIR
MS20995-C32	-
S.B.145-56-0004	-

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
223		LH emergency exit
224		RH emergency exit

D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
GSE 146	Special wrench	To adjust the eccentric bushing	
GSE 147	Special wrench	To adjust the eccentric bushing	

E. Auxiliary Items

Not Applicable

F. Consumable Materials

SPECIFICATION (BRAND)	DESCRIPTION	QTY
MIL-P-10971	Cotter pin	AR

G. Expendable Parts

ITEM	IPC REFERENCE (VENDOR REFERENCE)	QTY
Safety wire	MS20995-C32	AR

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the alignment	Emergency exits

I. Alignment ([Figure 502](#)) ([Figure 503](#)) ([Figure 504](#)) ([Figure 505](#))

SUBTASK 820-002-A

- (1) With the emergency exit fully closed (control lever in the locked position), make sure that it is aligned with the fuselage loft line.

NOTE: The lever will be in the locked position when the signal flag is out of view.

- (2) If it is not aligned, adjust the eccentric bushing until it is in line with the fuselage loft line. Refer to [Figure 502](#); DET. A; DET. B; and DET. C.

NOTE: There must be a minimum gap of 0.5 mm and a maximum gap of 1.5 mm between the Teflon guide upper surface and the airplane structure, when the emergency exit is locked in the closed position ([Figure 503](#)). If the gap is not in the limits specified, replace the Teflon bushing and file it down to get the correct gap.

- (3) After the alignment, move the control grip. If there is seizing or friction, adjust the eccentric bushing until a smooth movement is got when the control lever (rear lower bellcrank is not locked) is moved. Refer to [Figure 502](#); DET. D.

- (4) Measure the necessary force to operate the cockpit emergency exit ([Figure 505](#)).

NOTE: • To open the cockpit emergency exit, the lock button on the control grip must be pushed. Refer to [AMM SDS 56-10-00/1](#).

• Make sure that the dynamometer is perpendicular to the internal handle all along the handle travel.

• Make sure that handle do not spin during test.

– To open the cockpit emergency exit, the reference force is 157 N (16 kgf) and not greater than 176.5 N (18 kgf).

– To close the cockpit emergency exit, the reference force is 245 N (25 kgf) and not greater than 353 N (36 kgf).

– If the values are not satisfactory, go to step (2).

- (5) Do a check for water penetration through the cockpit emergency exit.

(a) If there is no water penetration, go to step (6).

(b) If there is water penetration, replace ([AMM TASK 56-11-02-400-801-A/400](#)) or rework ([AMM TASK 56-11-03-300-801-A/800](#)) the cockpit emergency-exit rubber-trim seal or, on aircraft PRE-MOD [S.B.145-56-0004](#), the fuselage frame sealant.

- (6) Apply the final torque to the eccentric shaft nuts.



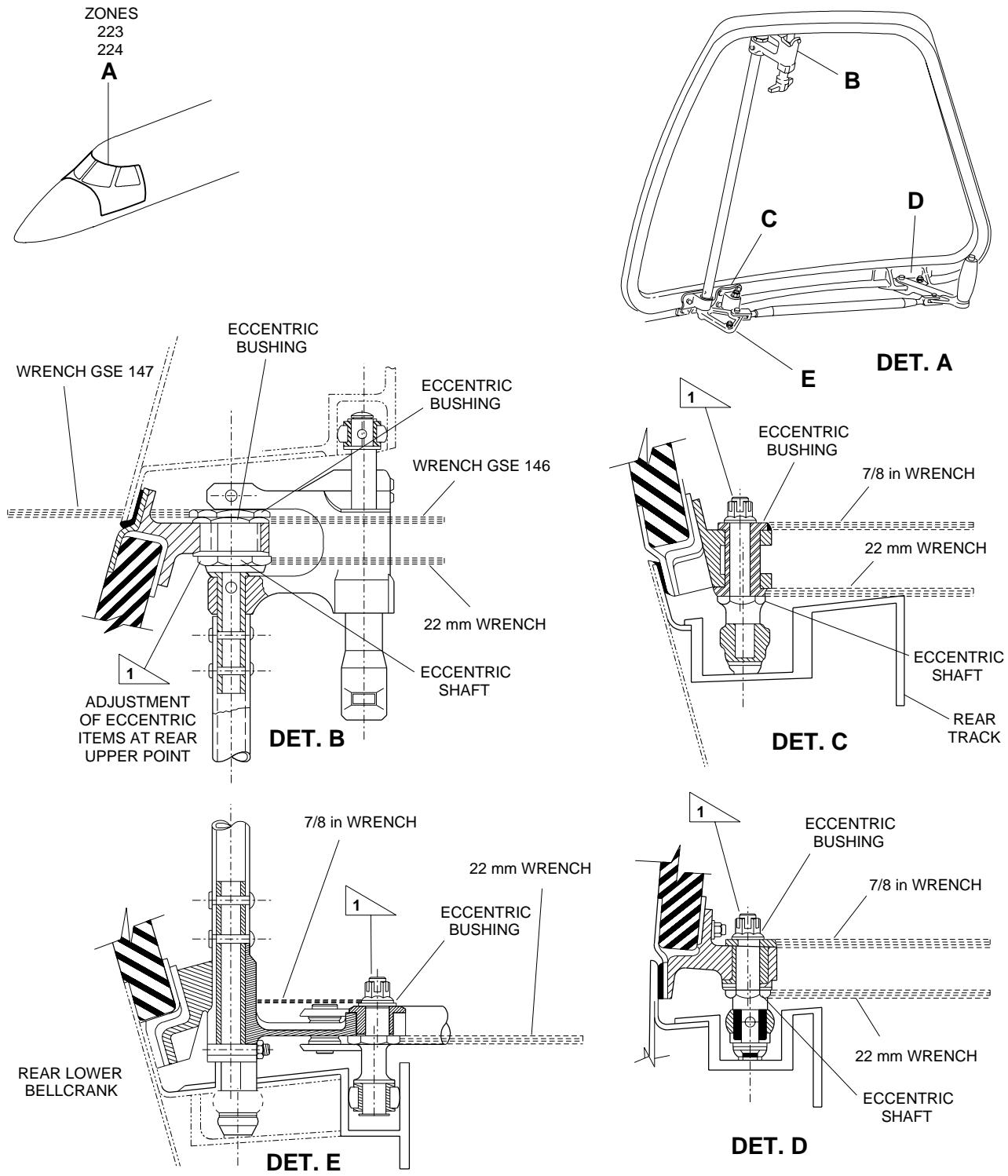
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NOTE: After the adjustment, do not loosen the eccentric bushing or water penetration will occur.

- (7) Put the protection cap and attach it with the cotter pin ([Figure 504](#)) to safety the nut.

EFFECTIVITY: ALL
Eccentric Bushing Adjustment
Figure 502



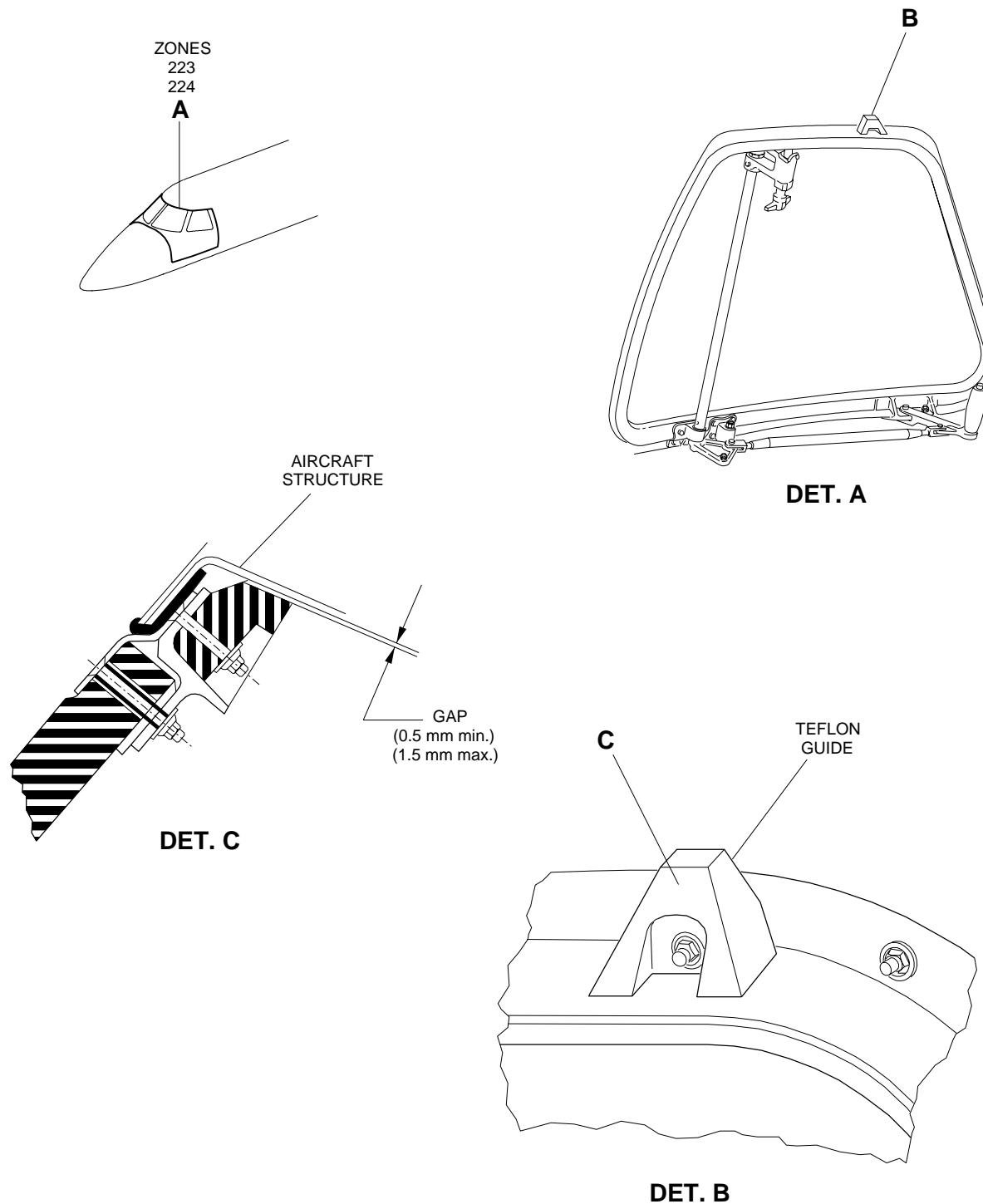
1 TORQUE: 18.1 TO 20.9 N.m (160 TO 185 lb.in)

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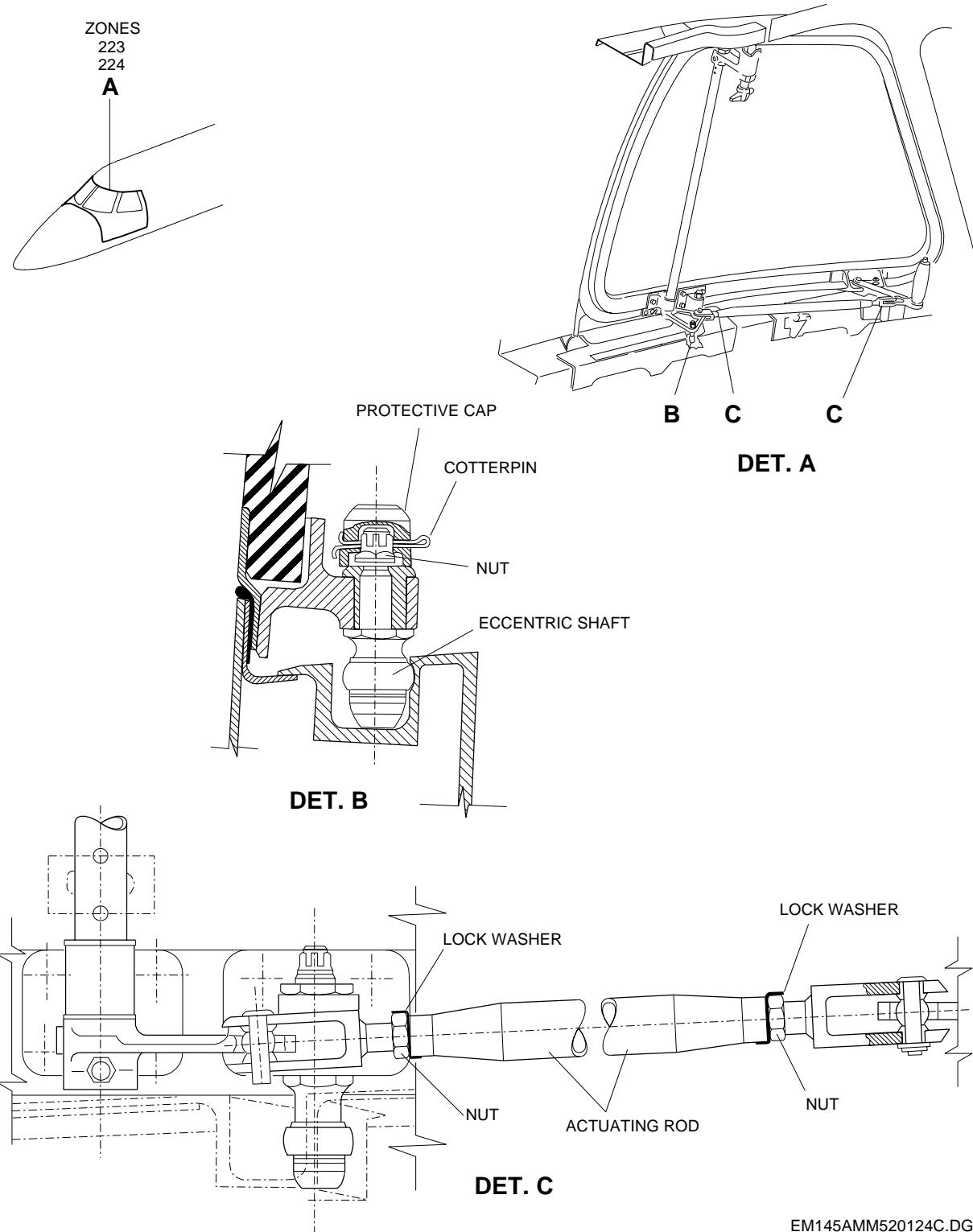
EFFECTIVITY: ALL

Gap Between Teflon Guide and Aircraft Structure

Figure 503



EFFECTIVITY: ALL
Safetying After Alignment
Figure 504

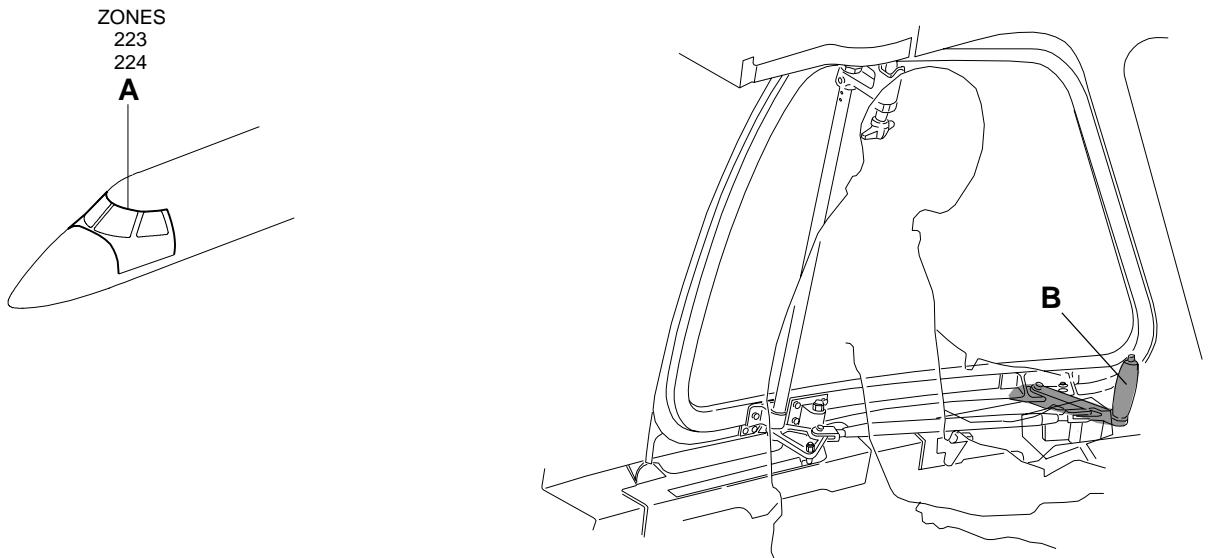


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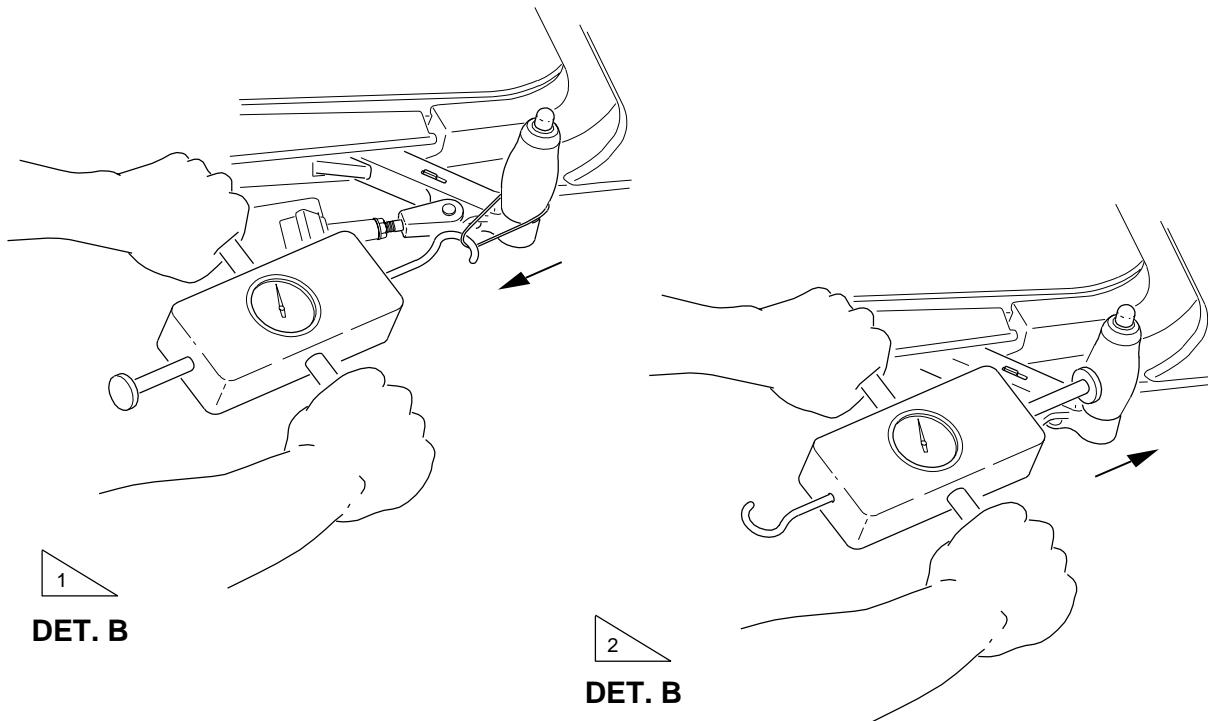
EFFECTIVITY: ALL

Operation Measurement Procedure

Figure 505



DET. A



1 TO OPEN THE COCKPIT EMERGENCY EXIT, THE REFERENCE FORCE IS 157 N (16 kgf) AND NOT GREATER THAN 176.5 N (18 kgf)

2 TO CLOSE THE COCKPIT EMERGENCY EXIT, THE REFERENCE FORCE IS 245 N (25 kgf) AND NOT GREATER THAN 353 N (36 kgf)

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TASK 56-11-00-820-802-A
EFFECTIVITY: ALL
4. COCKPIT EMERGENCY EXIT - ADJUSTMENT
A. General

- (1) This task gives the procedures to adjust the emergency exit mechanism.

B. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
223		LH emergency exit
224		RH emergency exit

C. Tools and Equipment

Not Applicable

D. Auxiliary Items

Not Applicable

E. Consumable Materials

Not Applicable

F. Expandable Parts

Not Applicable

G. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the adjustment	At the emergency exits

H. Adjustment ([Figure 506](#))
SUBTASK 820-003-A

- (1) Move the emergency-exit control lever in the locked position.

NOTE: The lever will be in the locked position when the signal flag is out of view.

- (2) Release the control rod end which is connected to the rear lower bellcrank.

- (3) Put the rear lower bellcrank at the mechanism neutral point ([Figure 506](#)).

- (4) Adjust the control rod length as follows: make it longer or shorter, until it is possible to connect the rod to the bellcrank with no change to the bellcrank and control lever locations ([Figure 506](#)).

EFFECTIVITY: ALL
Control Lever Adjustment
Figure 506

