

PASSENGER ADDRESS&CABIN INTERPHONE SYSTEM - ADJUSTMENT/TEST

EFFECTIVITY: ALL

1. General

- A. This section gives the procedures to do the tests of the Passenger Address and Cabin Interphone System.
- 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
23-31-00-700-801-A	PASSENGER ADDRESS & CABIN INTERPHONE SYSTEM - OPERATIONAL TEST	ALL
23-31-00-700-802-A ♦	CABIN INTERPHONE EMER/BACKUP MODE - OPERATIONAL CHECK	ALL
23-31-00-700-803-A ♦	PASSENGER CABIN LOUDSPEAKER - OPERATIONAL CHECK	ALL
23-31-00-820-801-A	PASSENGER-ADDRESS AUDIO VOLUME AND SENSITIVITY - ADJUSTMENT	ALL

TASK 23-31-00-700-801-A

EFFECTIVITY: ALL

2. PASSENGER ADDRESS & CABIN INTERPHONE SYSTEM - OPERATIONAL TEST

A. General

- (1) This task gives the procedures to do an operational test of the Passenger Address & Cabin Interphone System.
- (2) There are two Attendant Handsets, one (standard) installed on the Cockpit Partition and the other (optional) installed on the toilet LH fwd partition.

B. References

REFERENCE	DESIGNATION
AMM TASK 20-40-01-860-801-A/200	ENERGIZATION OF THE AIRCRAFT WITH AN EXTERNAL POWER SOURCE

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
113	113EL - External power receptacle/Ramp microphone access door	Forward fuselage I - LH
272	272AR - Hail ramp door	Rear fuselage - RH

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	Cockpit
1	Does the task	Passenger cabin or ramp

I. Preparation (Figure 504)

SUBTASK 841-006-A

- (1) Energize the aircraft with the External DC-Power Supply ([AMM TASK 20-40-01-860-801-A/200](#)).
- (2) Connect the pilot, copilot, and observer headphones.

- J. Cabin Interphone - Operational Test (Figure 501) (Figure 502) (Figure 503) (Figure 504) (Figure 505) (Figure 506) (Figure 507)

SUBTASK 710-005-A

- (1) Do the check of intercommunication between pilot-copilot-observer as follows:
 - (a) On the pilot and copilot DAPs:
 - Set the HDPH volume control to the middle position.
 - Set the INPH volume control to the middle position.
 - Push the BOOM pushbutton to the BOOM position.
 - (b) Put the PTT switch, on the pilot and copilot control wheels, in the Hot Mic position.
 - (c) On the observer jack panel, set the Mic switch to the Hot position.
 - (d) Start Hot Mic communication between pilot-copilot, pilot-observer, and copilot-observer.
- (2) Do the check of intercommunication between the Cockpit and the Ramp:
 - (a) On the Front Ramp Station, push the Cockpit Call button.
Result:
 - 1 In the cockpit area, a HI/LO chime sounds.
 - (b) Start the Hot Mic communication between the Ramp Station and the cockpit crew members.
 - (c) On the Ramp Hail, push the Cockpit Call button.
Result:
 - 1 In the cockpit area, a HI/LO chime sounds.
 - (d) Start Hot Mic communication between the Ramp Station and the cockpit crew members.
- (3) Do the check of communication from Pilot to Passenger Cabin (Passenger Address) as follows:
 - (a) On the Pilot DAP, push the PAX button.
Result:
 - 1 On the DAP, the PAX button stripe bar comes on.
 - 2 On the Attendant Handset, in the passenger cabin, the PA LED comes on.
 - (b) Push the PTT pushbutton and start a communication from Pilot to Passenger Cabin.
 - (c) Do the check again for the Copilot and Observer.
- (4) Do the check of intercommunication between the Cockpit and the Cockpit Partition Attendant Handset.
 - (a) On the ICU panel, on the overhead panel, push the CABIN pushbutton.
Result:
 - 1 On the ICU panel, the CABIN pushbutton comes on.

- 2 In the Passenger Cabin area, a HI/LO chime sounds.
 - 3 On the Attendant Handset, in the passenger cabin, the PILOT LED comes on.
 - 4 On the Attendant Call panel, in the passenger cabin, the PILOT LED comes on.
- (b) Remove the Attendant Handset from its cradle.
- (c) Start communication between the Pilot and the Flight Attendant.
- (d) Put the Handset back on its cradle.
- Result:
- 1 On the ICU panel, on the overhead panel, the CABIN pushbutton goes off.
 - 2 On the Attendant Handset, in the passenger cabin, the PILOT LED goes off.
 - 3 On the Attendant Call panel, in the passenger cabin, the PILOT LED goes off.
- (e) Remove the Attendant Handset from its cradle.
- (f) On the Attendant Handset, push the PILOT pushbutton.
- Result:
- 1 On the ICU panel, the CABIN pushbutton comes on and flashes.
 - 2 In the Pilot Cabin area, a HI/LO chime sounds.
 - 3 On the Attendant Handset, in the passenger cabin, the PILOT LED comes on and flashes.
 - 4 On the Attendant Call panel, in the passenger cabin, the PILOT LED comes on and flashes.
- (g) On the ICU panel, on the overhead panel, push the CABIN pushbutton.
- Result:
- 1 On the ICU panel, the CABIN pushbutton comes on.
 - 2 On the Attendant Handset, in the passenger cabin, the PILOT LED comes on.
 - 3 On the Attendant Call panel, in the passenger cabin, the PILOT LED comes on.
- (h) Start communication between the Pilot and the Flight Attendant.
- (i) Put the Handset back on its cradle.
- Result:
- 1 On the ICU panel, the CABIN pushbutton goes off.
 - 2 On the Attendant Handset, in the passenger cabin, the PILOT LED goes off.
 - 3 On the Attendant Call panel, in the passenger cabin, the PILOT LED goes off.
- (j) Do the check again for the Copilot and Observer.
- (k) (Only for aircraft with the optional Attendant Handset installed) Do steps (a) thru (i) again for the toilet LH forward partition attendant handset.

- (5) (Only for aircraft with the optional Attendant Handset installed) Do the check of intercommunication between the toilet LH forward partition attendant handset and the Cockpit Partition Attendant Handset.
- (a) Remove the attendant handset from its cradle.
 - (b) On the attendant handset, push the ATTD button.
Result:
 - 1 On the attendant handset, the ATTD LED comes on.
 - 2 In the Passenger Cabin area, a HI/LO chime sounds.
 - (c) Start communication between the attendant handset.
 - (d) Do steps (a) thru (c) again for intercommunication between the Cockpit Partition Attendant Handset and toilet LH forward partition attendant handset.

K. Follow-on

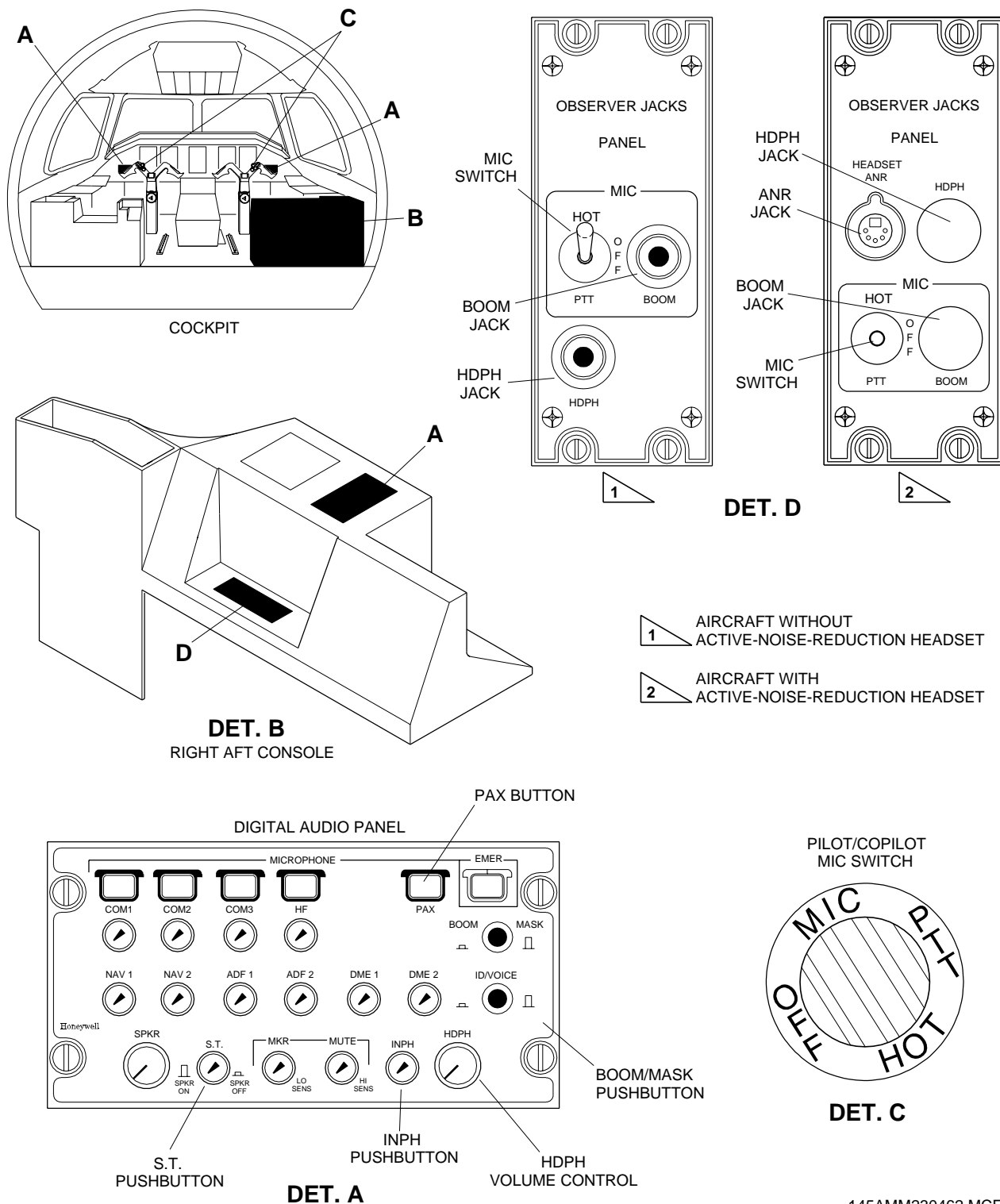
SUBTASK 842-006-A

- (1) Deenergize the aircraft ([AMM TASK 20-40-01-860-801-A/200](#)).

EFFECTIVITY: ALL

Pilot/Copilot and Observer Digital Audio Panel and MIC Switches

Figure 501

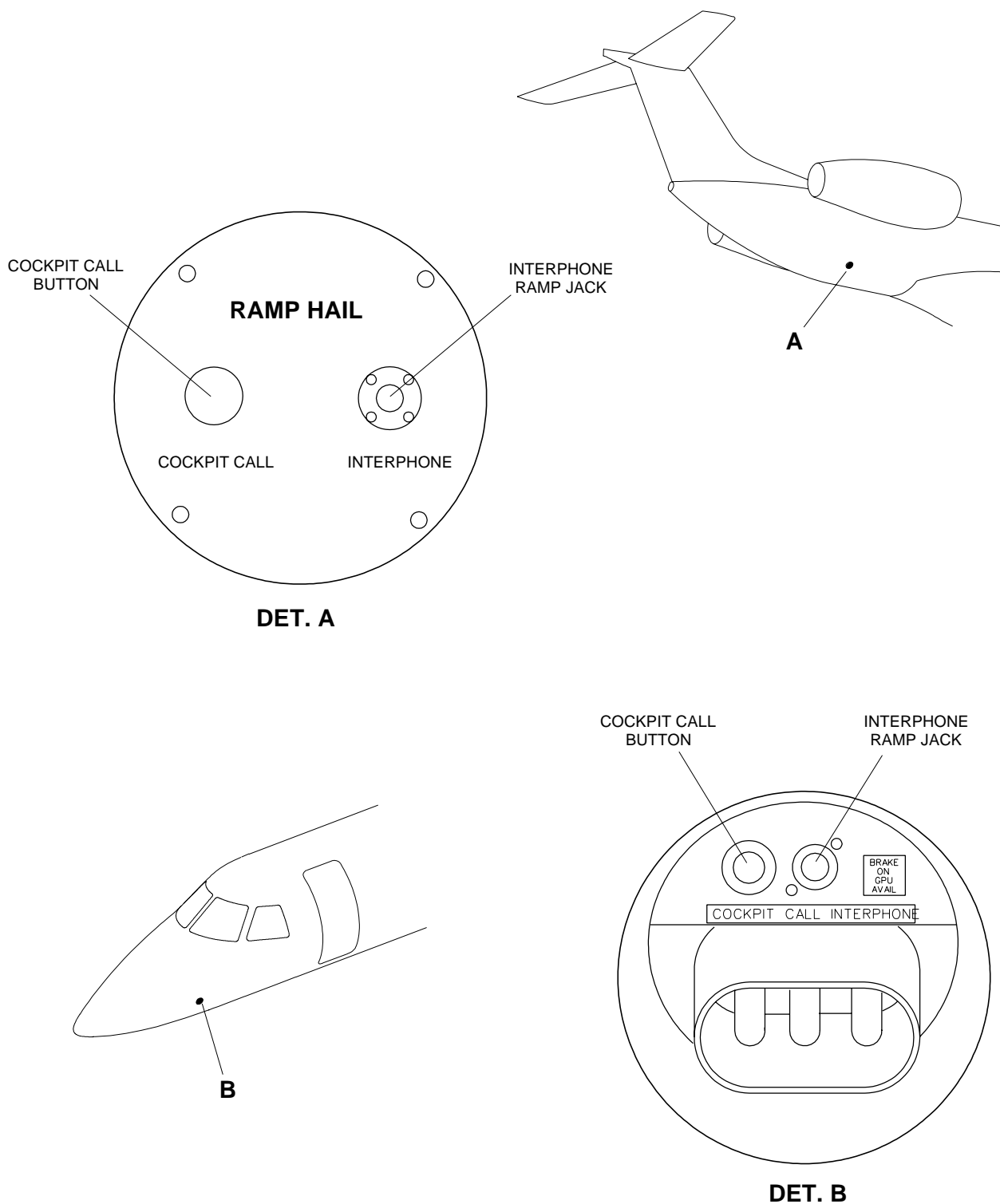


145AMM230462.MCE

EFFECTIVITY: ALL

Cabin Interphone - Ramp Connections

Figure 502



EM145AMM231454A.DGN

TASK 23-31-00-700-802-A

EFFECTIVITY: ALL

3. CABIN INTERPHONE EMER/BACKUP MODE - OPERATIONAL CHECK

A. General

- (1) This task gives the procedures to do the operational check of the Cabin Interphone System in the EMER/BACKUP Mode.
- (2) The check procedures are the same for the pilot, copilot, observer and the two attendant handset.
- (3) There are two Attendant Handsets, one (standard) installed on the Cockpit Partition and the other (optional) installed on the toilet LH fwd partition.

B. References

REFERENCE	DESIGNATION
AMM SDS 23-31-00/1	
AMM SDS 23-33-00/1	
AMM SDS 23-51-00/1	
AMM TASK 20-40-01-860-801-A/200	ENERGIZATION OF THE AIRCRAFT WITH AN EXTERNAL POWER SOURCE

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	Cockpit
1	Does the task	Passenger cabin

I. Preparation ([Figure 504](#))

SUBTASK 841-008-A

- (1) Energize the aircraft with the External DC Power Supply ([AMM TASK 20-40-01-860-801-A/200](#)).

- (2) Connect the pilot, copilot, and observer headphones ([AMM SDS 23-51-00/1](#)).
- (3) Make sure that these systems are operational and on:
 - Passenger Address & Cabin Interphone System ([AMM SDS 23-31-00/1](#)).
 - Passenger Loudspeakers ([AMM SDS 23-33-00/1](#)).
 - Airborne Audio System ([AMM SDS 23-51-00/1](#)).
- J. Operationally Check Back-up/Emergency Cabin Interphone System ([Figure 504](#)) ([Figure 505](#)) ([Figure 506](#)) ([Figure 507](#)) ([Figure 501](#))

SUBTASK 710-007-A

- (1) Do a check of the Pilot-to-Cockpit Partition Attendant handset Call, in the Emergency Mode of Operation.
 - (a) On the ICU panel, on the overhead panel, push the CAB EMER pushbutton.

Result:

 - 1 On the ICU, the CAB EMER pushbutton comes on and flashes.
 - 2 In the Passenger Cabin area, a HI/LO chime sounds.
 - 3 On the Attendant Handset, in the passenger cabin, the EMER PILOT LED comes on and flashes.
 - 4 On the Attendant Call panel, in the passenger cabin, the EMER PILOT LED comes on and flashes.
 - (b) Remove the attendant handset from its cradle.

Result:

 - 1 On the ICU panel, on the overhead panel, push the CAB EMER pushbutton. The pushbutton comes on.
 - 2 On the Attendant Handset, in the passenger cabin, the EMER PILOT LED comes on.
 - 3 On the Attendant Call panel, in the passenger cabin, the EMER PILOT LED comes on.
 - (c) Start Hot Mic communication between the pilot and the attendant.

NOTE: If you use the boom Mic, make sure that the Boom position is set on the digital audio panel.
 - (d) Put the handset back on its cradle.

Result:

 - 1 On the ICU, the CAB EMER pushbutton goes off.
 - 2 On the Attendant Handset, in the passenger cabin, the EMER PILOT LED goes off.
 - 3 On the Attendant Call panel, in the passenger cabin, the EMER PILOT LED goes off.
- (2) Do the check above again for the Copilot and the Observer.
- (3) (Only for aircraft with the optional Attendant Handset installed) Do the check above again for the toilet LH forward partition attendant handset.

- (4) Do a check of the Cockpit Partition Attendant handset-to-Pilot Call, in the Emergency Mode of Operation.
- (a) Remove the handset from its cradle.
 - (b) Push the EMER PILOT button, on the Attendant Handset.
Result:
 - 1 On the ICU, the CAB EMER pushbutton comes ON and flashes.
 - 2 In the Cockpit area, a HI/LO chime operates.
 - 3 On the Attendant Handset, the EMER PILOT LED comes on and flashes.
 - 4 On the Attendant Call panel, in the passenger cabin, the EMER PILOT LED comes on and flashes.
 - (c) Push the CAB EMER pushbutton on the ICU panel.
Result:
 - 1 On the ICU panel, the CAB EMER pushbutton comes on.
 - 2 On the Attendant Handset, the EMER PILOT LED comes on.
 - 3 On the Attendant Call panel, in the passenger cabin, the EMER PILOT LED comes on.
 - (d) Start Hot Mic communication between the Attendant and the cockpit crew members.
 - (e) Put the handset back on its cradle.
Result:
 - 1 On the ICU, the CAB EMER pushbutton goes off.
 - 2 On the Attendant handset, the EMER PILOT LED goes off.
 - 3 On the Attendant Call panel, in the passenger cabin, the EMER PILOT LED goes off.
 - (f) (Only for aircraft with the optional Attendant Handset installed) Do the check above again for the toilet LH forward partition attendant handset.
- (5) Do a check of the Backup Mode selection by the pilot for Cockpit Partition Attendant handset.
- (a) On the ICU, on the overhead panel, push the BACKUP INPH pushbutton.
Result:
 - 1 On the ICU, the BACKUP INPH, CABIN, and CAB EMER pushbutton striped bars come on.
 - 2 On the Attendant Handset, in the passenger cabin, the EMER PILOT LED and PILOT LED come on.
 - 3 On the Attendant Call panel, in the passenger cabin, the EMER PILOT LED and PILOT LED come on.
 - (b) On the ICU, push and hold the ATTD CALL pushbutton.
Result:
 - 1 A tone sounds in the passenger cabin.
 - (c) Remove the attendant handset from its cradle.

- (d) Push the handset PTT and start communication between the pilot and the attendant.

NOTE: Make sure that the PTT, on the control wheel, is in the HOT MIC position.
 - (e) On the ICU, push the BACKUP INPH pushbutton again.

Result:

 - 1 On the ICU, the BACKUP INPH, CABIN, and CAB EMER pushbuttons go off.
 - 2 On the Attendant Handset, the EMER PILOT LED and PILOT LED go off.
 - 3 On the Attendant Call panel, in the passenger cabin, the EMER PILOT LED and PILOT LED go off.
 - (f) Put the handset back on its cradle.
 - (g) Do the check again for the Copilot and Observer.
 - (h) (Only for aircraft with the optional Attendant Handset installed) Do the check again for the toilet LH forward partition attendant handset.
- (6) Do a check of the Backup Mode selection by the attendant in the Cockpit Partition Attendant handset.
- (a) Remove the attendant handset from its cradle.
 - (b) Push the BACKUP INPH button, on the Attendant Handset.

Result:

 - 1 On the ICU, the CABIN and CAB EMER pushbuttons come on.
 - 2 On the Attendant Handset, the BACKUP INPH LED, PILOT LED, and EMER PILOT LED come on.
 - 3 (Only for aircraft with the optional Attendant handset installed) On the other Attendant Handset, the PILOT LED and the EMER PILOT LED come on.
 - 4 On the Attendant Call panel, on the passenger cabin, the PILOT LED and EMER PILOT LED come on.
 - (c) Push the handset PTT and start communication between the attendant and the cockpit crew members.
 - (d) Push the BACKUP INPH button again, on the Attendant Handset.

Result:

 - 1 On the handset, the BACKUP INPH, PILOT and EMER PILOT LEDs goes off.
 - 2 On the ICU, the CABIN and CAB EMER pushbuttons go off.
 - 3 (Only for aircraft with the optional Attendant handset installed) On the other Attendant Handset, the PILOT LED and the EMER PILOT LED go off.
 - 4 On the Attendant Call panel, in the passenger cabin, the PILOT LED and EMER PILOT LED go off.
 - (e) Put the handset back on its cradle.
 - (f) (Only for aircraft with the optional Attendant Handset installed) Do the check again for the toilet LH forward partition attendant handset.

K. Follow-on ([Figure 504](#))

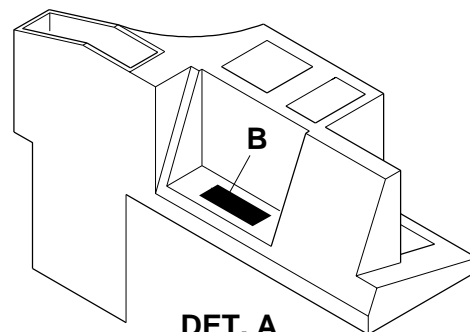
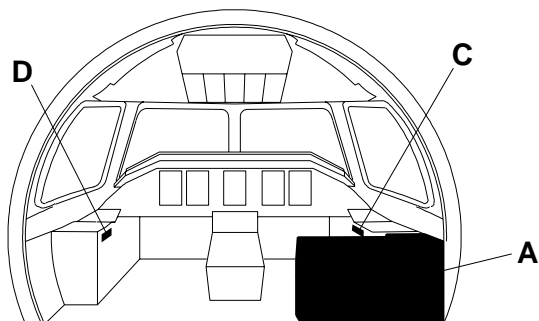
SUBTASK 842-008-A

- (1) Deenergize the aircraft ([AMM TASK 20-40-01-860-801-A/200](#)).

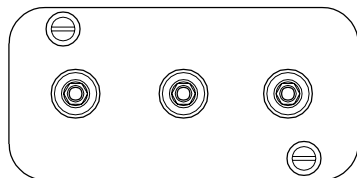
EFFECTIVITY: ALL

Pilot, Copilot, and Observer Headphones Jacks

Figure 503

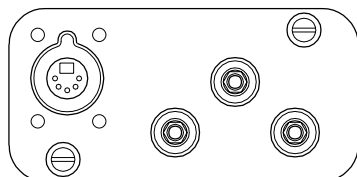


PHONE BOOM MIC HAND MIC

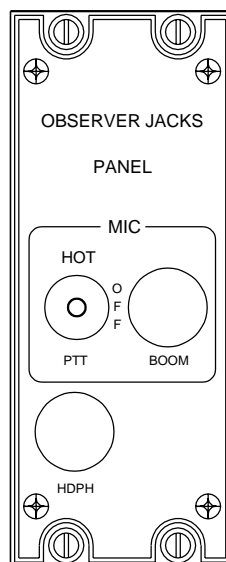


DET. C 1

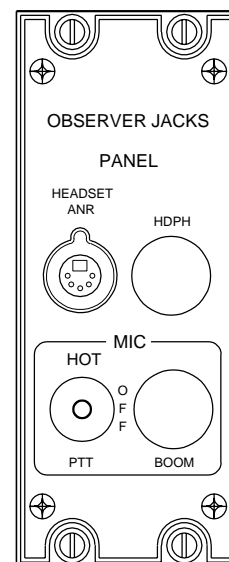
HEADSET ANR HEAD PHONE BOOM MIC HAND MIC



DET. C 2

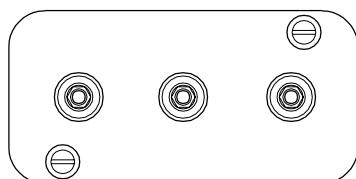


DET. B 1



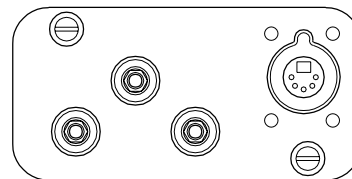
DET. B 2

HAND MIC BOOM MIC PHONE



DET. D 1

HAND MIC BOOM MIC HEAD PHONE HEADSET ANR



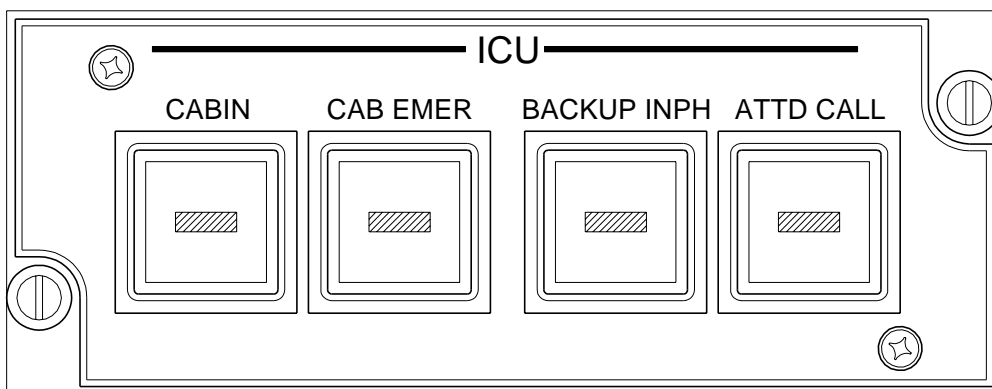
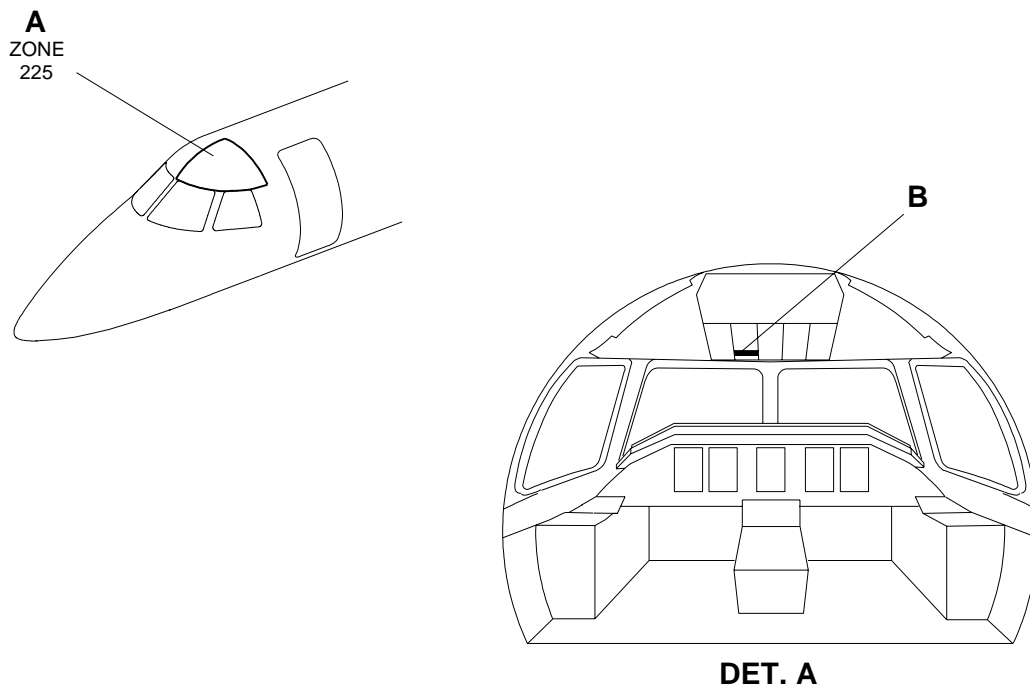
DET. D 2

1 AIRCRAFT WITHOUT ACTIVE-NOISE-REDUCTION HEADSET

2 AIRCRAFT WITH ACTIVE-NOISE-REDUCTION HEADSET

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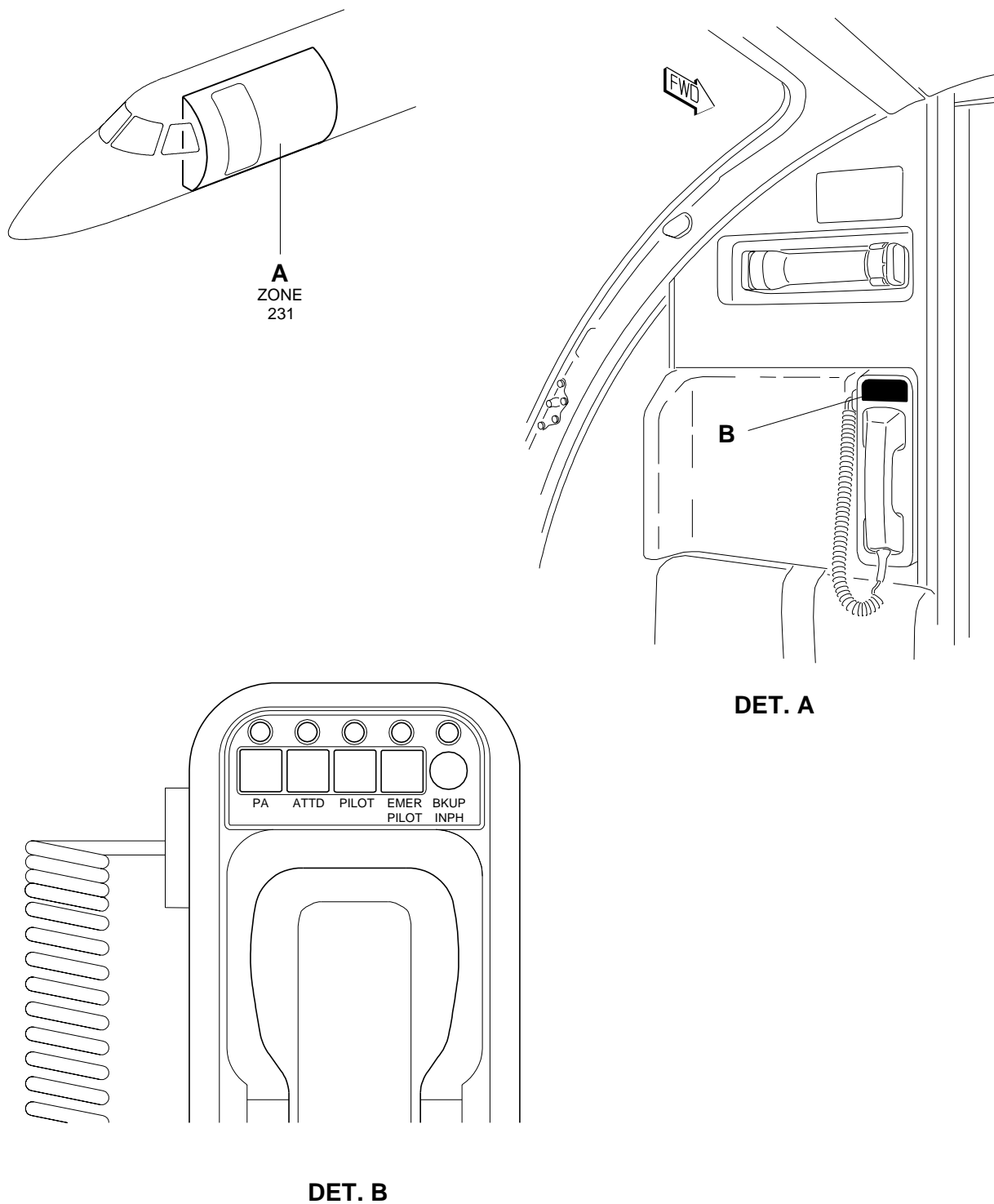
EFFECTIVITY: ALL
 Interphone Control Unit (ICU)
 Figure 504



DET. B

EM145AMM231451A.DGN

EFFECTIVITY: ALL
 Attendant Handset
 Figure 505

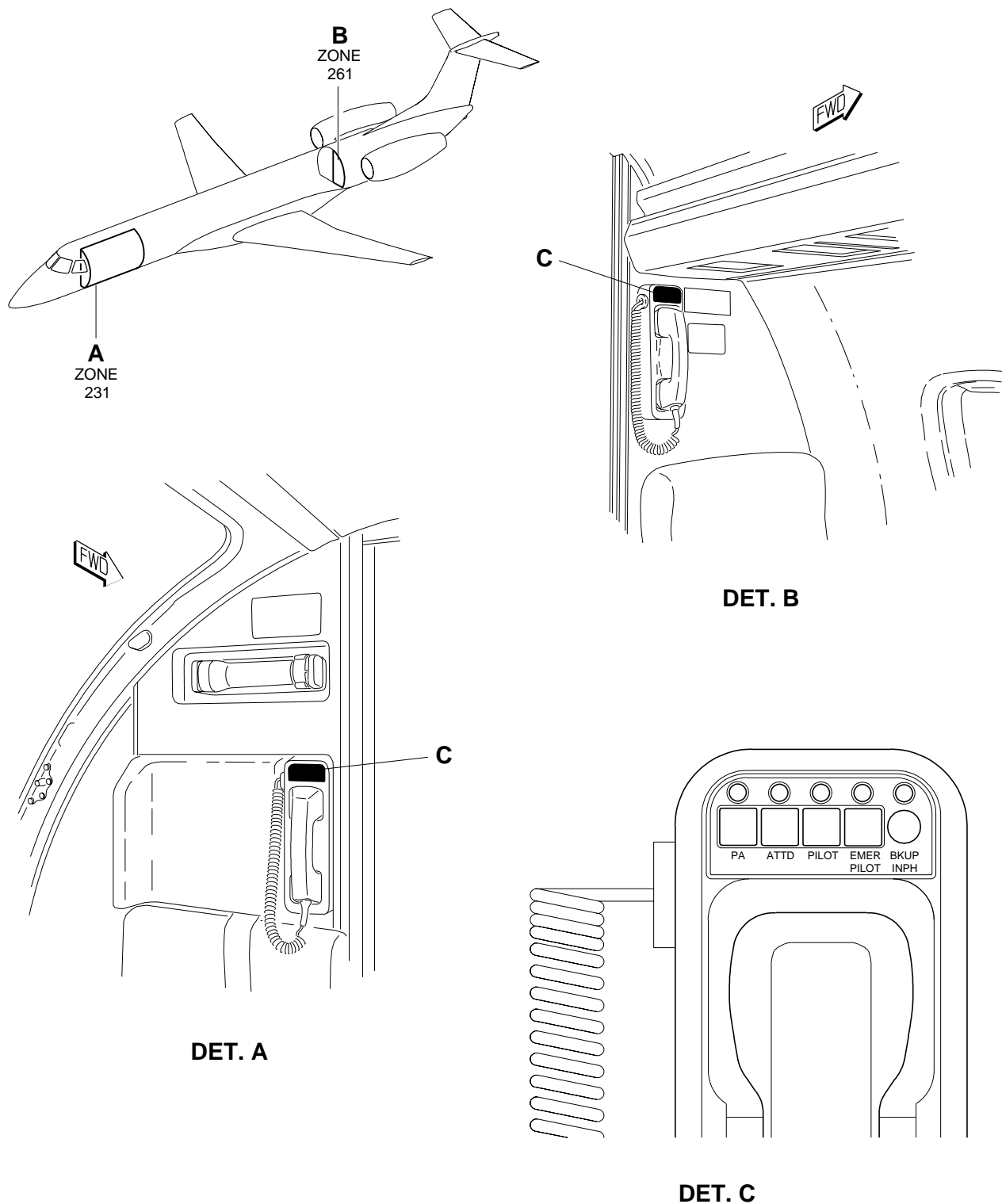


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EFFECTIVITY: AIRCRAFT WITH THE OPTIONAL ATTENDANT HANDSET

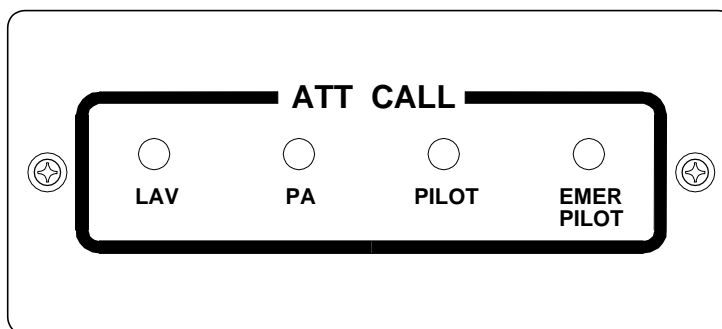
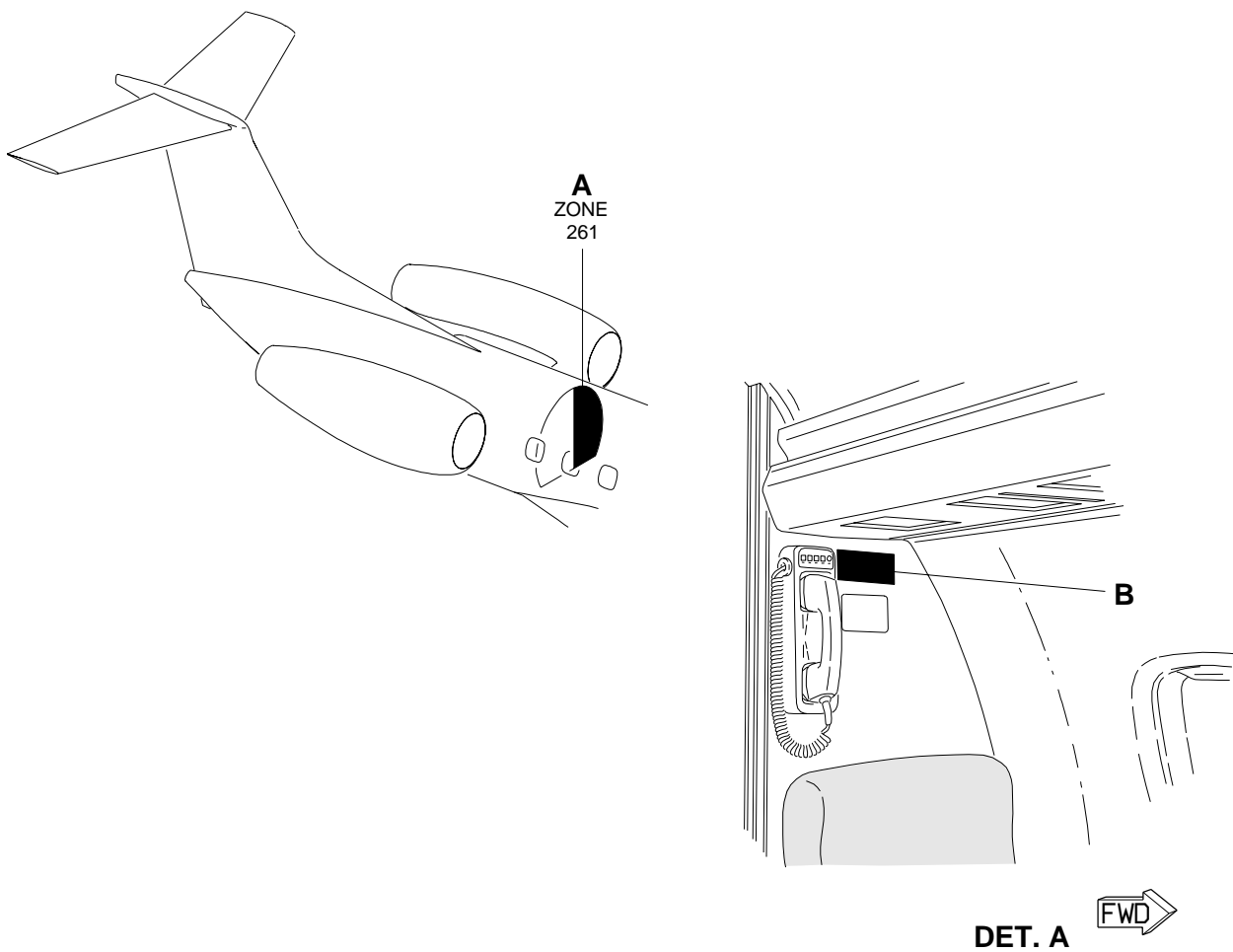
Attendant Handset

Figure 506



145AMM230215.MCE

EFFECTIVITY: ALL
Attendant Call Panel
Figure 507



DET. B

145AMM230213.MCE

TASK 23-31-00-700-803-A

EFFECTIVITY: ALL

4. PASSENGER CABIN LOUDSPEAKER - OPERATIONAL CHECK

A. General

- (1) This task gives the procedures to do the operational check of the Loudspeakers in the Passenger Cabin.

B. References

REFERENCE	DESIGNATION
AMM SDS 23-31-00/1	
AMM SDS 23-33-00/1	
AMM SDS 23-51-00/1	
AMM TASK 20-40-01-860-801-A/200	ENERGIZATION OF THE AIRCRAFT WITH AN EXTERNAL POWER SOURCE

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	Cockpit
1	Does the task	Passenger cabin

I. Preparation

SUBTASK 841-005-A

- (1) Energize the aircraft with the External DC Power Supply ([AMM TASK 20-40-01-860-801-A/200](#)).
- (2) Make sure that these systems are operational and on:
 - Passenger Address & Cabin Interphone System ([AMM SDS 23-31-00/1](#)).
 - Airborne Audio System ([AMM SDS 23-51-00/1](#)).
 - Passenger Loudspeakers ([AMM SDS 23-33-00/1](#)).

J. Operationally Check Loudspeakers ([Figure 508](#)) ([Figure 509](#)) (Figure 506) (Figure 507)

SUBTASK 710-004-A

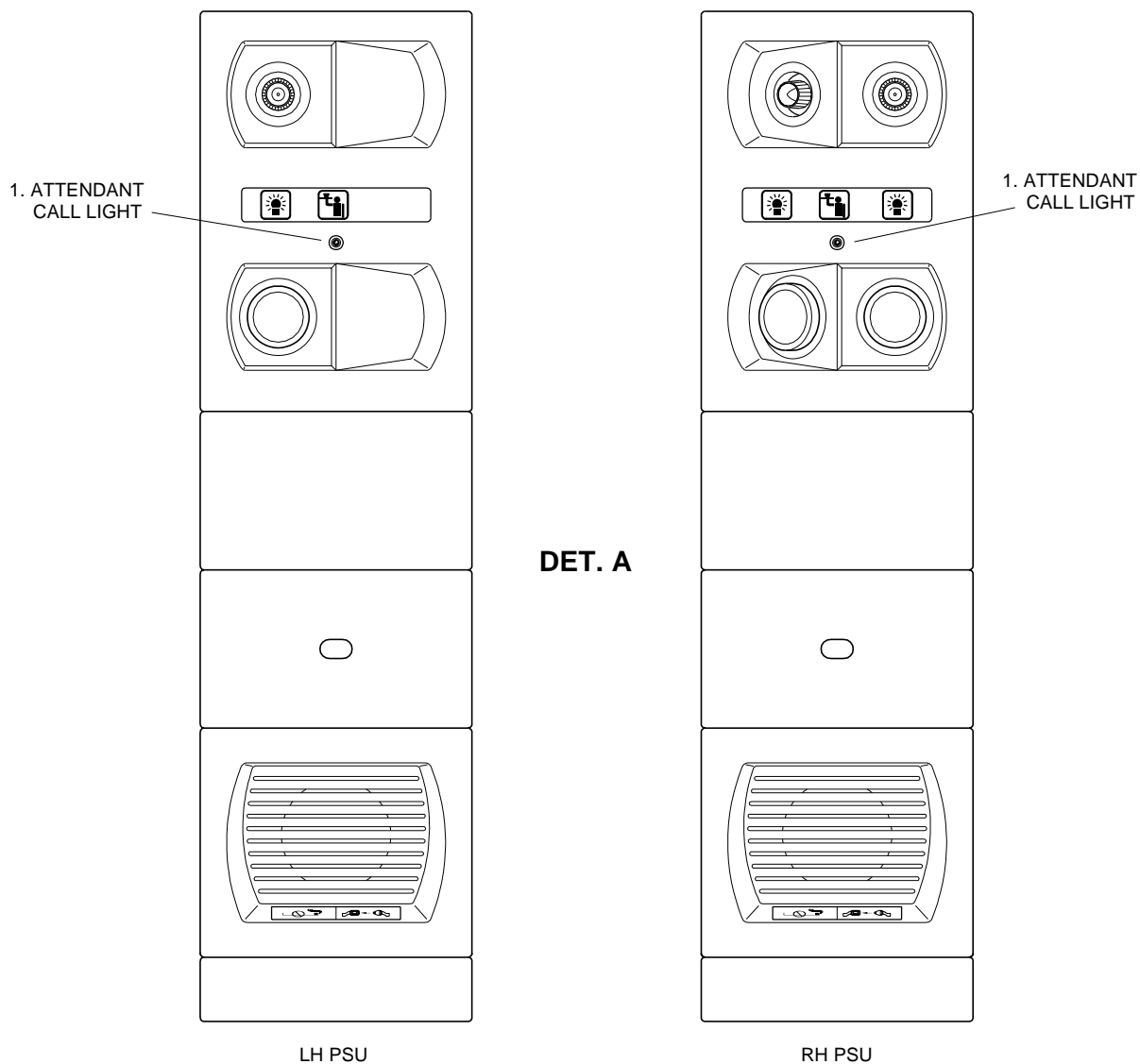
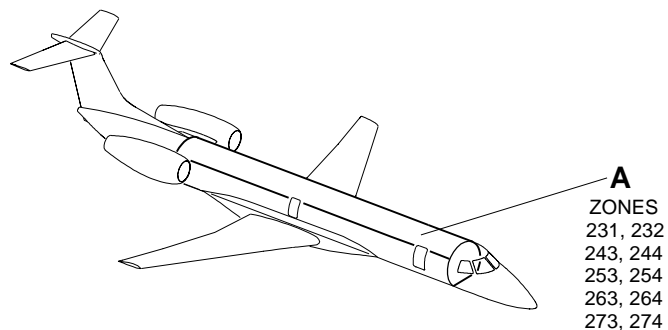
- (1) Do the check of the Passenger Cabin Loudspeakers with the Cockpit Partition Attendant Handset as follows:
 - (a) On the Attendant handset, remove the handset from its cradle.
 - (b) On the Attendant handset, push the PA button.
Result:
 - 1 On the Attendant handset, the PA LED comes on.
 - (c) Push the Handset PTT and start communication between the attendant and Passenger.
 - (d) Make sure that each of the passenger cabin and lavatory loudspeakers is OK.
 - (e) Put the Attendant handset back on its cradle.
Result:
 - 1 On the Attendant handset, the PA LED goes off.
 - (f) (Only for aircraft with the optional Attendant Handset installed) Do steps (a) thru (e) again for the toilet LH forward partition attendant handset.

K. Follow-on

SUBTASK 842-005-A

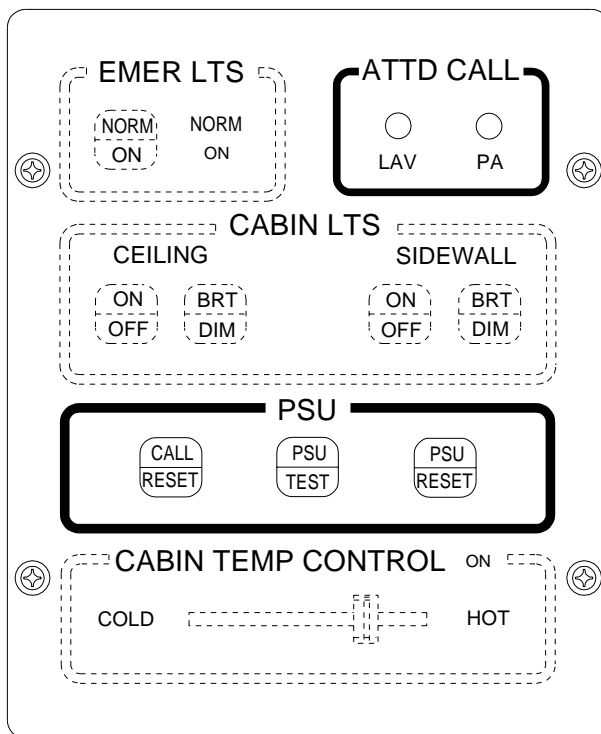
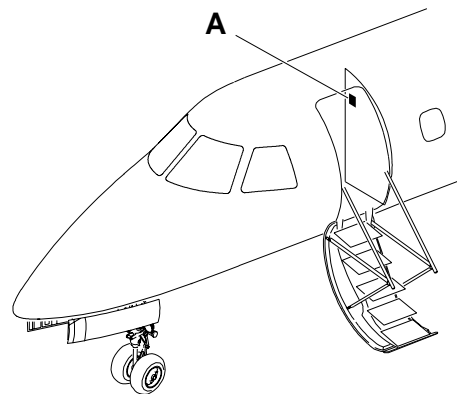
- (1) Deenergize the aircraft ([AMM TASK 20-40-01-860-801-A/200](#)).

EFFECTIVITY: ALL
Passenger Loudspeakers
Figure 508



EM145AMM331035A.DGN

EFFECTIVITY: ALL
 Attendant Control Panel
 Figure 509



DET. A

EM145AMM331034A.DGN

TASK 23-31-00-820-801-A

EFFECTIVITY: ALL

5. PASSENGER-ADDRESS AUDIO VOLUME AND SENSITIVITY - ADJUSTMENT

A. General

- (1) This task gives the procedures to adjust the audio volume/sensitivity of the passenger address system and the attendant headset microphone gain.
- (2) The potentiometers for the adjustment are installed on the Maintenance Panel.

B. References

REFERENCE	DESIGNATION
AMM TASK 20-40-01-860-801-A/200	ENERGIZATION OF THE AIRCRAFT WITH AN EXTERNAL POWER SOURCE
AMM TASK 31-17-01-000-801-A/400	MAINTENANCE PANEL - REMOVAL
AMM TASK 31-17-01-400-801-A/400	MAINTENANCE PANEL - INSTALLATION

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
223	223LZ	Cockpit
231		Passenger cabin
261		Passenger cabin

D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Digital ohmmeter	To measure electric resistance	

E. Auxiliary Items

Not Applicable

F. Consumable Materials

SPECIFICATION (BRAND)	DESCRIPTION	QTY
MEP09-068	Lacquer (P/N: F-925-Pink-Torque Seal)	AR

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Cockpit
1	Does the task	Passenger cabin

I. Preparation

SUBTASK 841-003-A

- (1) Remove the Maintenance Panel ([AMM TASK 31-17-01-000-801-A/400](#)).

J. Cabin Interphone - Adjustment ([Figure 510](#)) (Figure 509)

SUBTASK 820-002-A

NOTE: The PA/VOL and the PA/SENS potentiometers on the Maintenance Panel are already adjusted and safetied with lacquer on the assembly line, as shown below. If it is necessary to adjust them do the steps (1) and (2).

- PA/SENS: Connector J7204, pins 1 and 2 with the most appropriate impedance as listed in table 501.
- PA/VOL: Connector J7204, pins 4 and 5 with impedance between 20 and 70Ω.

- (1) Adjust the PA/VOL potentiometer as follows:

- (a) On the Maintenance Panel, loosen the locking nut at the PA/VOL potentiometer.
- (b) Connect a digital ohmmeter across pin 4 and pin 5 of connector J7204.
- (c) Adjust the PA/VOL potentiometer until you get a value between 20 and 70Ω.
- (d) With the lacquer, lock the PA/VOL potentiometer.

- (2) Adjust the PA/SENS potentiometer as follows:

Table 501 - PA/SENS IMPEDANCE RANGES

40 to 80 Ohms
200 to 250 Ohms
450 to 500 Ohms (suggested)
700 to 750 Ohms
900 to 1000 Ohms
1250 to 1500 Ohms

- (a) On the Maintenance Panel, loosen the locking nut at the PA/SENS potentiometer.
 - (b) Connect a digital ohmmeter across pin 1 and pin 2 of connector J7204.
 - (c) Adjust the PA/SENS potentiometer until you get the most appropriate impedance as listed in table 501.
 - (d) With the lacquer, lock the PA/SENS potentiometer.
- (3) Adjust the Attendant Headset Microphone Gain as follows:
 - (a) Energize the aircraft with the External DC-Power Supply ([AMM TASK 20-40-01-860-801-A/200](#)).
 - (b) Close the aircraft main and service doors to prevent interference of external noise with the Passenger Address and Cabin Interphone System adjustment.

- (c) Adjust the gain of the flight attendant handset microphone. Use a small screwdriver to turn the potentiometer at the bottom of the flight attendant handset. First turn the screwdriver completely counterclockwise to cancel the microphone gain.
- (d) Keep the handset PTT pushed and make a voice announcement, while you increase the microphone gain with a slow movement of the screwdriver clockwise. Increase the microphone gain until you get the maximal audio volume for this respective flight attendant operation area, without audio microphone feedback. As a result, the voice announcement for the passengers must be clear and loud.
- (e) Do steps (c) and (d) again for each flight attendant handset installed in the aircraft.
- (f) As a check of the audio quality, make a voice announcement from the Pilot seat. Use the pilot's headset and hand-mike microphone. The voice announcement for the passengers must be clear and loud.
- (g) Do step above (f) again for the copilot and observer seats. The voice announcement for the passengers must be clear and loud.

K. Follow-on

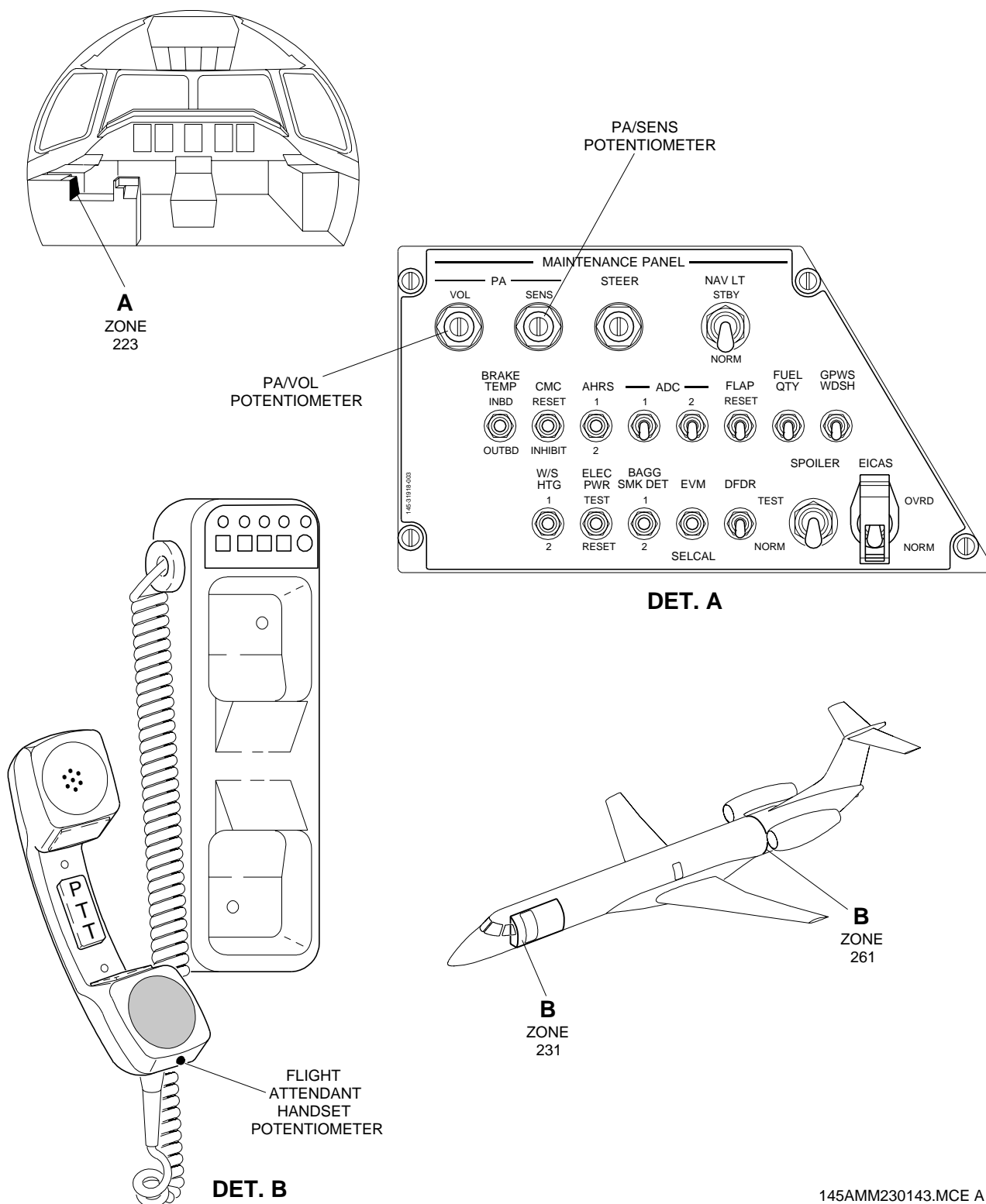
SUBTASK 842-003-A

- (1) Open the main door.
- (2) Install the Maintenance Panel ([AMM TASK 31-17-01-400-801-A/400](#)).
- (3) Deenergize the aircraft ([AMM TASK 20-40-01-860-801-A/200](#)).

EFFECTIVITY: ALL

Passenger-Address Audio Volume and Sensitivity - Adjustment

Figure 510



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