



AIRCRAFT  
MAINTENANCE MANUAL

SERVICE DOOR CONNECTION CABLES - REMOVAL/INSTALLATION

EFFECTIVITY: ALL

1. General

- A. This section gives the procedures to remove and install the service door cables.
- 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
52-43-09-000-801-A	SERVICE DOOR CABLES - REMOVAL	ALL
52-43-09-400-801-A	SERVICE DOOR CABLES - INSTALLA- TION	ALL



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TASK 52-43-09-000-801-A

EFFECTIVITY: ALL

2. SERVICE DOOR CABLES - REMOVAL

A. General

- (1) This task gives the procedures to remove the service door cables.

B. References

REFERENCE	DESIGNATION
AMM SDS 52-43-00/1	
AMM TASK 25-23-05-000-801-A/400	SERVICE DOOR LINING PANELS - REMOVAL

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
821		Service door

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	Service door

I. Preparation

*SUBTASK 841-002-A*

NOTE: Do not open the door fully. Only put it out of its frame.

- (1) Open the service door ([AMM SDS 52-43-00/1](#)).

- (2) Remove the service door lining panels ([AMM TASK 25-23-05-000-801-A/400](#)).

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

*SUBTASK 020-002-A*

- (1) Remove the service door connecting cables (12) (refer to detail B) from the support (13) as follows:

- (a) Remove the cotter pin (3), nut (2), and washer (1).

- (b) Remove the spring (4) attached to the bellcrank (5).
- (c) Remove the bellcrank (5) from the support (6).
- (d) Remove the cotter pin (7), washer (8), and straight pin (9).
- (e) Remove the end of the cables (12) attached to the bellcrank (5).
- (f) On each side of the support (13), cut two lockwires (10).

**CAUTION: BE CAREFUL TO PREVENT DAMAGE TO THE PROTECTIVE BOOT.**

- (g) For connecting cables equipped with protective boots (refer to detail B), loosen the tiedown strap (14) to permit the protective boot (15) movement.
  - (h) Loosen the two nuts (11) at each cable.
  - (i) Remove the cables (12) from the support (13).
- (2) Remove the locks connection cables (38) (refer to detail C/D) from the lock boxes (27) as follows:
- (a) Remove the nuts (16) and the screws (17) (2 positions), and release the microswitch (18).
  - (b) Remove the nut (19), washer (20), and the bolt (21) and remove the clamp (22) from the end of the torque tube (23).
  - (c) Remove the nuts (24), washers (25), and bolts (26) (2 positions) that attach the lock (27) to the support (28).
  - (d) Remove the lock (27).
  - (e) Loosen the screw (29) (3 positions) and remove the lock box cover (30).
  - (f) Cut and remove the lockwire (31).

**CAUTION: BE CAREFUL TO PREVENT DAMAGE TO THE PROTECTIVE BOOT.**

- (g) For connecting cables equipped with protective boots (refer to detail C/D), loosen the tiedown straps (32) (2 positions) to permit the protective boot (33) movement.
- (h) Loosen the nuts (34) (2 positions).
- (i) Loosen the spring (35).
- (j) Remove the cotter pin (36) and straight pin (37) from the lock box (27).
- (k) Pull the cable (38) (covered portion end) to permit its removal from the lock box (27).

**NOTE:** The procedure of the removal/installation of the lock connection cables must be done for the two lock boxes.

- (3) Remove the internal-handle connection cable (39) (refer to detail E) from the support (40) as follows:



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- (a) Cut the lockwire (42).

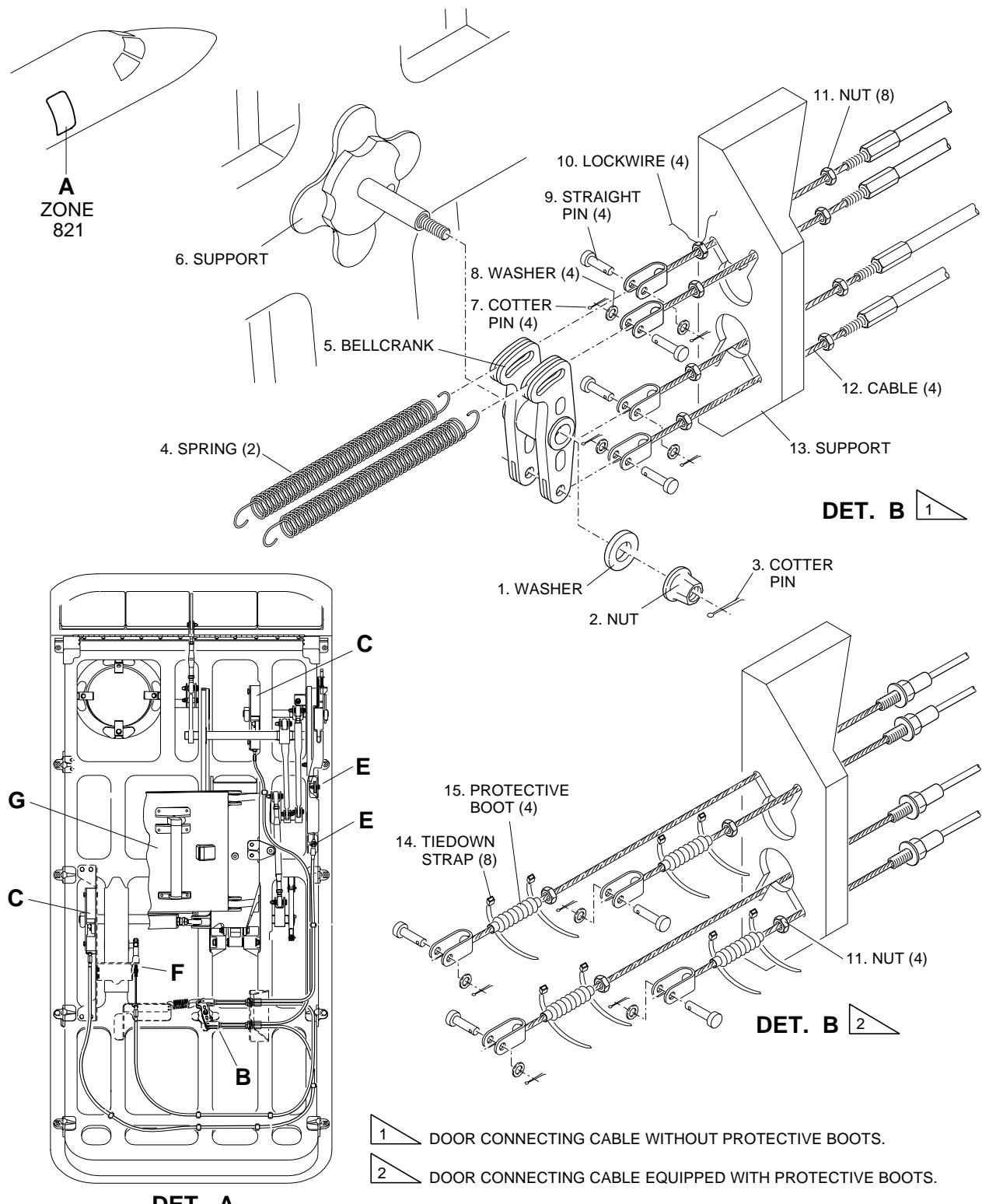
**CAUTION: BE CAREFUL TO PREVENT DAMAGE TO THE PROTECTIVE BOOT.**

- (b) For connecting cables equipped with protective boot (refer to detail E), loosen the tiedown strap (45) to permit the protective boot (46) movement.
  - (c) Loosen the nuts (41) to release the cable (39) from the support (40).
  - (d) Remove the cotter pin (43) from the bellcrank (44).
  - (e) Remove the cable (39) from the support (40) and bellcrank (44).
- (4) Remove the external-handle connection cable (47) (refer to detail F) from the support (50) as follows:
- (a) Cut the lockwire (48) that safeties the nuts (49).
- CAUTION: BE CAREFUL TO PREVENT DAMAGE TO THE PROTECTIVE BOOT.**
- (b) For connecting cables equipped with protective boot (refer to detail F), loosen the tiedown strap (53) to permit the protective boot (54) movement.
  - (c) Loosen the nuts (49) of the cable (47).
  - (d) Remove the cotter pin (52) from the bellcrank (51).
  - (e) Remove the cable (47) from the support (50) and bellcrank (51).
- (5) Remove the cable (56) from the rotating arm (refer to detail G) as follows:
- (a) Remove the nut (57), bolt (53), and bushings (54) from the locking handle (55).
  - (b) Remove the cotter pin (60), washer (59), and the pin (58) from the locking lever (61).
  - (c) To remove the cable from the locking lever.

**EFFECTIVITY: ALL**

Service Door Cables - Removal/Installation

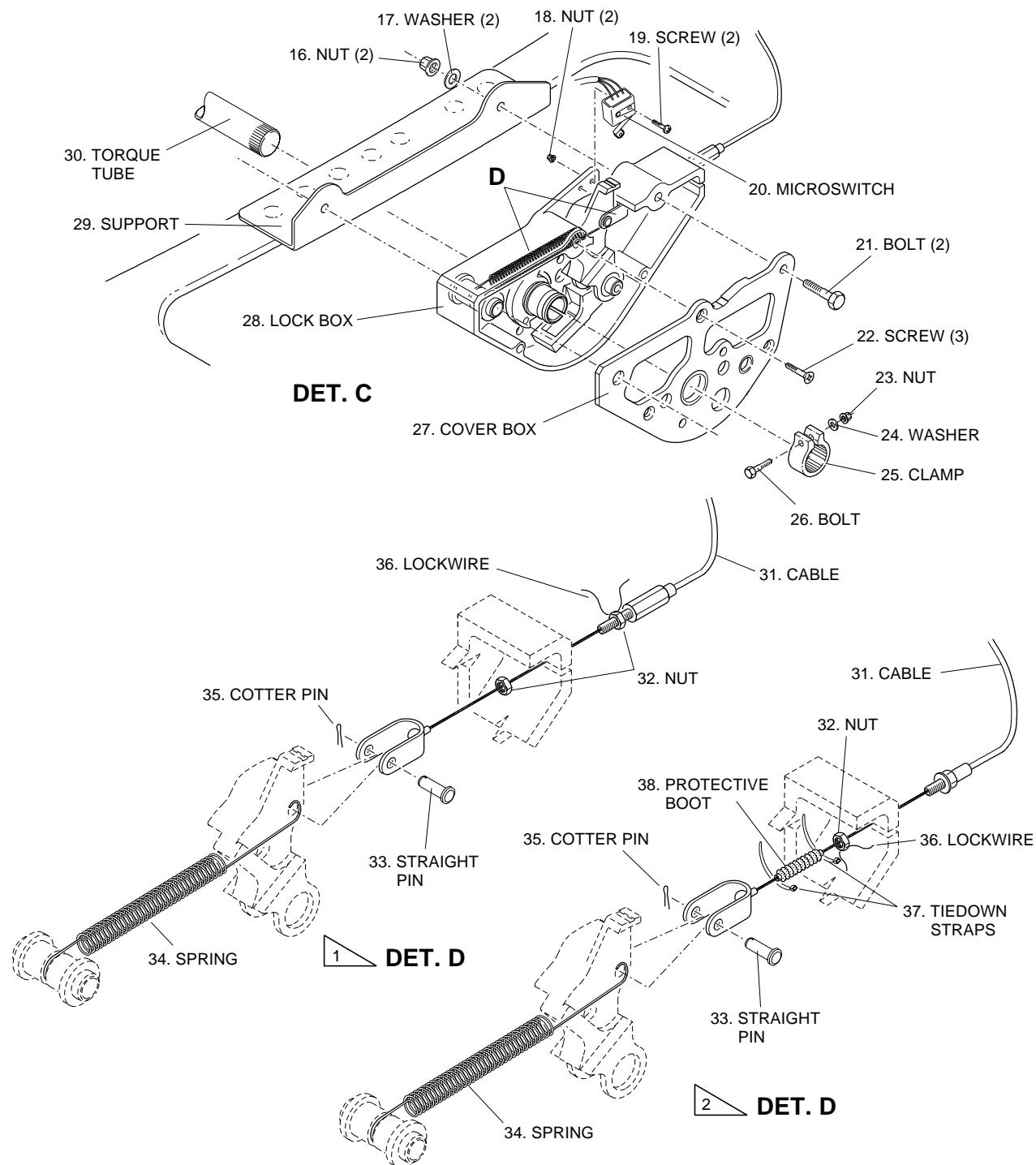
Figure 401 - Sheet 1



**EFFECTIVITY: ALL**

Service Door Cables - Removal/Installation

Figure 401 - Sheet 2



**1** DOOR CONNECTING CABLE WITHOUT PROTECTIVE BOOTS.

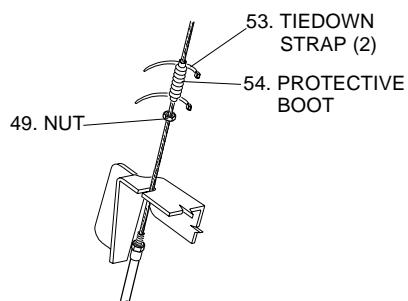
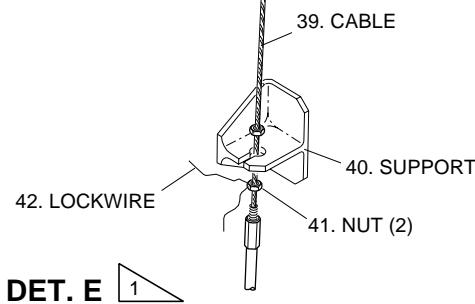
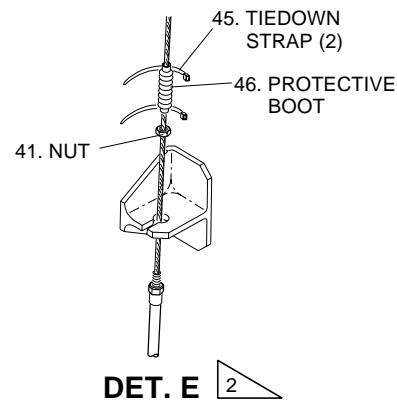
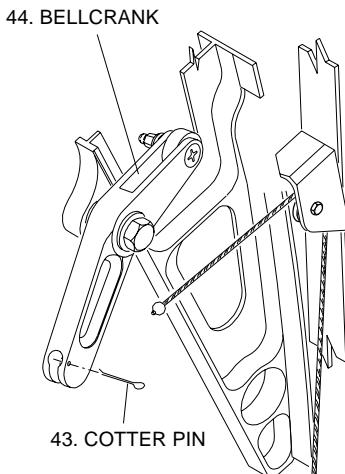
**2** DOOR CONNECTING CABLE EQUIPPED WITH PROTECTIVE BOOTS.

EM145AMM520644A.DGN

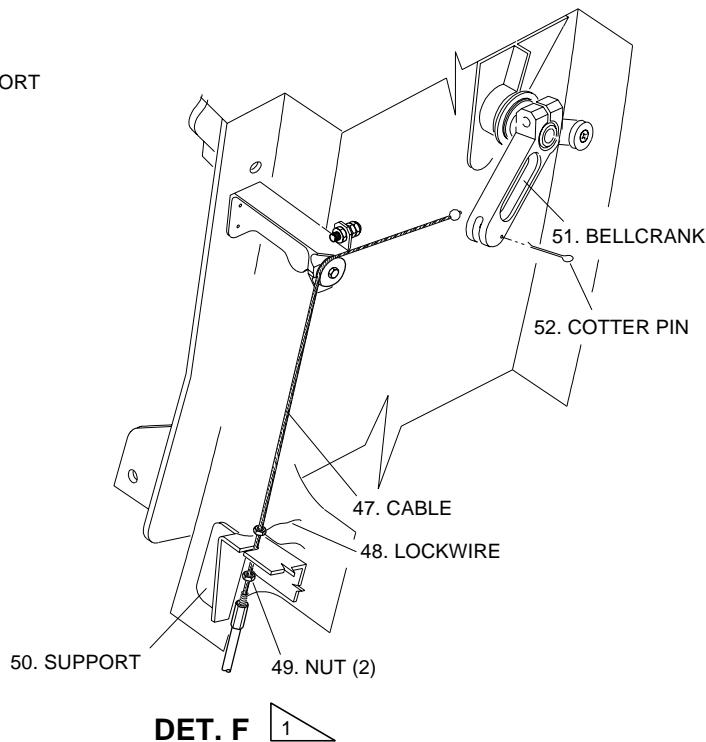
**EFFECTIVITY: ALL**

Service Door Cables - Removal/Installation

Figure 401 - Sheet 3



**DET. F** ▲ 2



▲ 1 DOOR CONNECTING CABLE WITHOUT PROTECTIVE BOOTS.

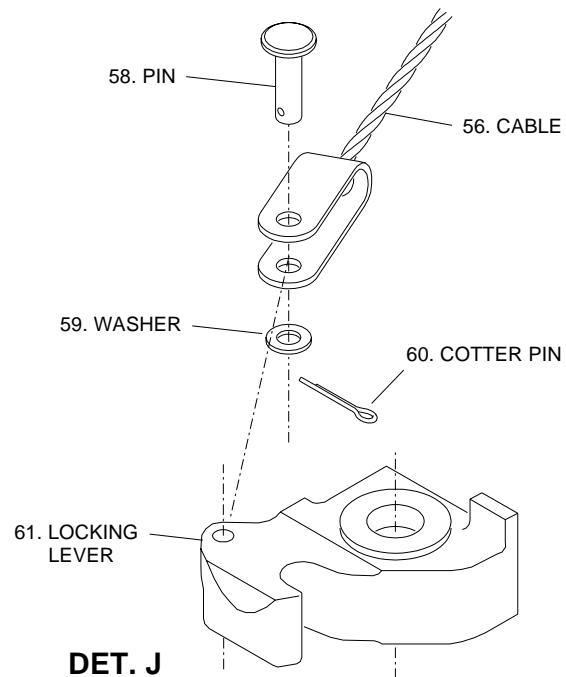
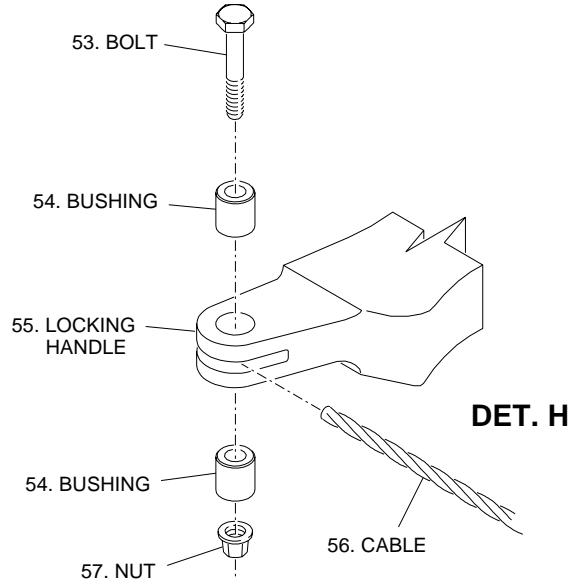
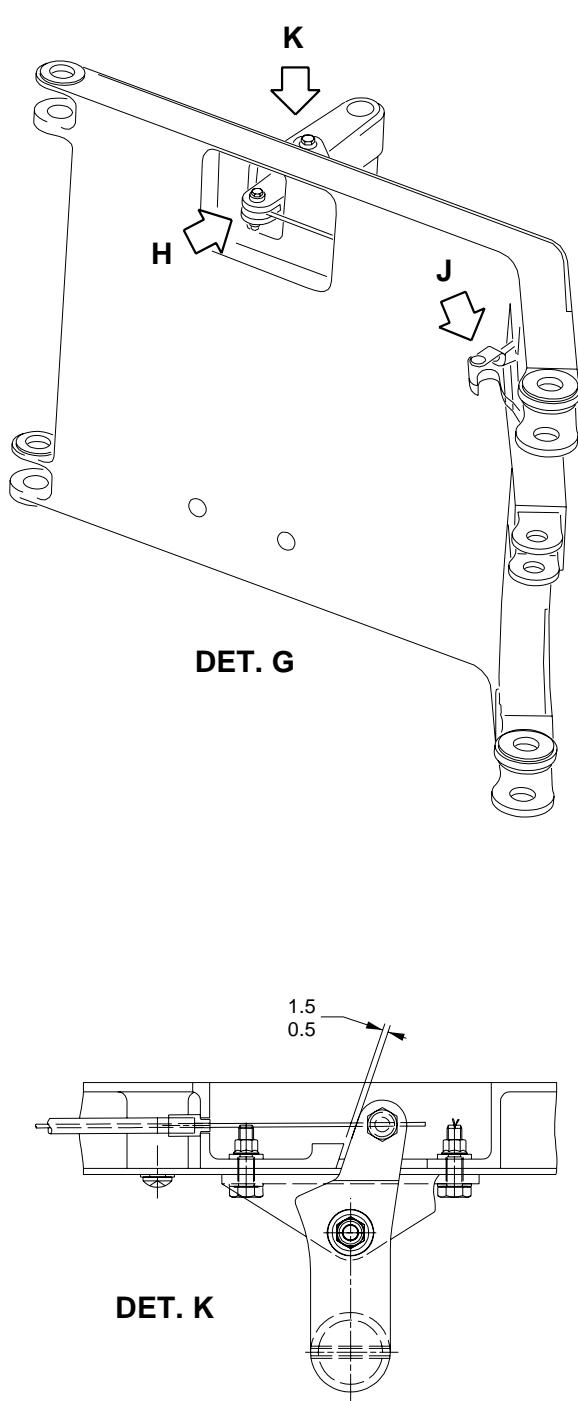
▲ 2 DOOR CONNECTING EQUIPPED WITH PROTECTIVE BOOTS.

EM145AMM520409B.DGN

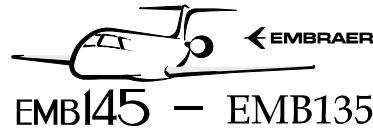
**EFFECTIVITY: ALL**

Service Door Cables - Removal/Installation

Figure 401 - Sheet 4



EM145AMM520581A.DGN



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TASK 52-43-09-400-801-A

EFFECTIVITY: ALL

3. SERVICE DOOR CABLES - INSTALLATION

## A. General

(1) This task gives the procedures to install the service door cables.

## B. References

REFERENCE	DESIGNATION
52-43-00	-
AMM SDS 52-43-00/1	
AMM TASK 25-23-05-400-801-A/400	SERVICE DOOR LINING PANELS - INSTALLATION
AMM TASK 52-43-00-600-801-A/300	SERVICE-DOOR ACTUATING AND LOCKING MECHANISM - LUBRICATION
AMM TASK 52-43-09-820-801-A/500	SERVICE DOOR CABLES - ADJUSTMENT

## C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
821		Service door

## D. Tools and Equipment

Not Applicable

## E. Auxiliary Items

Not Applicable

## F. Consumable Materials

SPECIFICATION (BRAND)	DESCRIPTION	QTY
MS20995-C32	Lockwire	AR
MS3367-4-9	Tiedown strap	AR
MIL-G-23827	Aeroshell grease 7	AR
MIL-C-16173 Grade 3 O-W-1284	Oil	AR

## G. Expendable Parts

ITEM	IPC REFERENCE (VENDOR REFERENCE)	QTY
Cotter pin	52-43-00	AR

## H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Service door



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I. Installation (Figure 401)

SUBTASK 420-002-A

**CAUTION:** THE LOCK BOXES CANNOT HAVE THEIR POSITIONS CHANGED.

**NOTE:** Make sure that the cables are lubricated. If they are not, lubricate the cables ([AMM TASK 52-43-00-600-801-A/300](#)).

- (1) Install the service door connecting cables (12) on the support (13) (refer to detail B) as follows:

- (a) Install the cables (12) on the support (13).
- (b) **NOTE:** For connecting cables without protective boot, approximately half of the threads must stay on one side of the support and the other half, on the other side.

Tighten the two nuts (11) of each cable.

- (c) Install the end of the cables (12) on the bellcrank (5).
- (d) Install the straight pin (9), washer (8), and cotter pin (7) at each cable.
- (e) Put the bellcrank (5) on the support (6).
- (f) Install the spring (4) on the bellcrank (5).
- (g) Install the washer (1), nut (2), and cotter pin (3).
- (h) For connecting cables equipped with protective boot, do as follows (refer to detail B):
  - 1 Put the protective boot (15) on the cable (covered portion end) near the support (13).
  - 2 With tiedown strap (14), attach the protective boot (15) end nearer the nut (11).
  - 3 Lubricate the protective boots (15) ([AMM TASK 52-43-00-600-801-A/300](#)).
  - 4 Attach the other ends of the protective boots (15) with the tiedown strap (14).

- (2) Install the locks connection cables (38) (refer to detail C/D) on the lock boxes (27) as follows:

- (a) **NOTE:** The lock box must be out of the service door.  
Install the cable (38) on the lock box (27).
- (b) **NOTE:** Connecting cables without protective boot, put approximately half of the threads on one side of the box and the other half, on the other side.  
Tighten the two nuts (34).
- (c) Connecting cables equipped with protective boot, do as follows (refer to detail D):

- 1 Put the protective boot (33) on the cable (covered portion end).
  - 2 With tiedown strap (32), attach the protective boot (33) end nearer the nut (34).
  - 3 Lubricate the protective boots (33) ([AMM TASK 52-43-00-600-801-A/300](#)).
  - 4 Attach the other tiedown strap (32) to the other protective boot (33) end.
- (d) Put the cable fork end-fitting inside the lock box (27).
- (e) Install the straight pin (37) and cotter pin (36) to attach the cable in the lock box (27).
- (f) Install the spring (35).
- (g) With Aeroshell grease 7, lubricate the lock box internal assemblies.
- (h) Install the lockwires (31) to safety the nuts (34).
- (i) Install the cover box (30) with the screws (29) (3 positions).
- (j) Put the lock box (27) on the torque tube (23) and the support (28) at the door structure.
- (k) Install the bolts (26), washers (25), and nuts (24) (2 positions) to attach the lock box (27) to the support (28).
- (l) Put the clamp (22) on the end of the torque tube (23).
- (m) Install the bolt (21), washer (20), and nut (19) to attach the clamp (22).
- (n) Put the microswitch (18) on the lock box (27).
- (o) Install the screws (17) and nuts (16) (2 positions) to attach the microswitch (18) to the lock box (27).
- (3) Install the internal-handle connecting cable (39) (refer to detail E) on the support (40) as follows:
- (a) Install the cable (39) on the support (40).
- (b) **NOTE:** For connecting cables without protective boot, approximately half of the threads must stay on one side of the support and the other half, on the other side.  
Tighten the nuts (41).
- (c) Install the lockwires (42) to safety the nuts (41).
- (d) For connecting cables equipped with protective boot, do as follows (refer to detail E):
- 1 Put the protective boot (46) on the cable (covered portion end) near the support (40).

- 2 With tiedown strap (45), attach the protective boot (46) end nearer the nut (41).
    - 3 Lubricate the protective boots (46) ([AMM TASK 52-43-00-600-801-A/300](#)).
    - 4 Attach the other tiedown strap (45) to the other protective boot (46) end.
  - (e) Install the end of the cable on the bellcrank (44).
  - (f) Install the cotter pin (43).
- (4) Install the external-handle connecting cable (47) (refer to detail F) on the support (50) as follows:
- (a) Install the cable (47) on the support (50).
  - (b) **NOTE:** For connecting cables without protective boot, approximately half of the threads must stay on one side of the support and the other half, on the other side.  
Tighten the nuts (49).
  - (c) Install the lockwires (48) to safety the nuts (49).
  - (d) For connecting cables equipped with protective boot, do as follows (refer to detail F):
    - 1 Put the protective boot (54) on the cable (covered portion end) near the support (50).
    - 2 With the tiedown strap (53), attach the protective boot (54) end nearer the nut (49).
    - 3 Lubricate the protective boots (54) ([AMM TASK 52-43-00-600-801-A/300](#)).
    - 4 Attach the other tiedown strap (53) to the other protective boot (54) end.
  - (e) Install the end of the cable on the bellcrank (51).
  - (f) Install the cotter pin (52).
  - (g) Install the lockwires to safety the nuts.
- (5) Install the cable handle assy (56) in the rotating arm (refer to detail G) as follows:
- (a) Put the cable (56) into the metallic cover.
  - (b) Install the pin (58), washer (59), and the cotter pin (60) to the locking lever (61).
  - (c) Install the nut (57), screw (53) and bushings (54) in the locking handle (55).
  - (d) Make sure that the gap between the locking handle and the rotating arm is according to (Figure 401); DET. K.



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J. Follow-on

SUBTASK 842-002-A

- (1) Adjust the cables ([AMM TASK 52-43-09-820-801-A/500](#)).
- (2) Install the service door lining panels ([AMM TASK 25-23-05-400-801-A/400](#)).
- (3) Close the service door ([AMM SDS 52-43-00/1](#)).

