

## AILERON CONTROL CABLES - REMOVAL/INSTALLATION

*EFFECTIVITY: ALL*

### 1. General

- A. This section gives the procedures to remove and install the control cables of the aileron control system.
- B. These procedures are applicable to the LH and RH ailerons.
- C. 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
27-11-01-000-801-A	CONTROL CABLES - REMOVAL	ALL
27-11-01-400-801-A	CONTROL CABLES - INSTALLATION	ALL
27-11-01-000-802-A	AUTOPILOT CONTROL CABLE - REMOV- AL	ALL
27-11-01-400-802-A	AUTOPILOT CONTROL CABLE - INSTAL- LATION	ALL

TASK 27-11-01-000-801-A

EFFECTIVITY: ALL

## 2. CONTROL CABLES - REMOVAL

### A. General

- (1) This procedure gives the instructions to remove the control cables of the aileron control system.

### B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-01/100	-
AMM MPP 06-41-02/100	-
AMM MPP 06-44-00/100	- COMPONENT LOCATION
AMM TASK 25-11-01-000-801-A/400	PILOT SEAT - REMOVAL
AMM TASK 25-21-01-000-801-A/400	-
AMM TASK 31-41-01-000-801-A/400	DATA ACQUISITION UNIT - REMOVAL
AMM TASK 31-42-01-000-801-A/400	INTEGRATED COMPUTER (IC-600) - REMOVAL
AMM TASK 45-45-01-000-801-A/400	CENTRAL MAINTENANCE COMPUTER (CMC) - REMOVAL
AMM TASK 57-41-00-000-801-A/400	LEADING EDGE I - REMOVAL
AMM TASK 57-42-00-000-801-A/400	LEADING EDGE II - REMOVAL
AMM TASK 57-43-00-000-801-A/400	LEADING EDGE III - REMOVAL
IPC 27-11-00	AILERON PRIMARY MECHANICAL CONTROL
IPC 27-11-03	TORQUE TUBE

### C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
123	123BL	Below the cockpit floor
124		Below the cockpit floor
131		Below the passenger cabin floor
132		Below the passenger cabin floor
141		Below the passenger cabin floor
142		Below the passenger cabin floor
151		Below the passenger cabin floor
152		Below the passenger cabin floor
221	221CF	Below the cockpit floor
221	221EF	Below the cockpit floor
221	221GF	Below the cockpit floor
222	222BF	Below the cockpit floor
222	222FF	Below the cockpit floor
231	231BF	Below the passenger cabin floor

(Continued)

ZONE	PANEL/DOOR	LOCATION
231	231FF	Below the passenger cabin floor
231	231GF	Below the passenger cabin floor
241	241BF	Below the passenger cabin floor
241	241DF	Below the passenger cabin floor
251	251BF	Below the passenger cabin floor
251	251CF	Below the passenger cabin floor
251	251DF	Below the passenger cabin floor
251	251JF	Below the passenger cabin floor
252	252BF	Below the passenger cabin floor
531		LH Wing
541		LH Wing
551	551BB	LH Wing
551	551CB	LH Wing
631		RH Wing
641		RH Wing
651	651BB	RH Wing
651	651CB	RH Wing

D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
<a href="#">GSE 058</a>	Kit, rig pin, flight controls	To lock the aileron control system in the neutral position	

E. Auxiliary Items

Not Applicable

F. Consumable Materials

Not Applicable

G. Expendable Parts

ITEM	IPC REFERENCE (VENDOR REFERENCE)	QTY
Cotter pin	IPC 27-11-03	AR
Locking clip	IPC 27-11-00	24
Pressure seal	IPC 27-11-00	8

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Below the floor of the cockpit and passenger cabin and at the wing

(Continued)

QTY	FUNCTION	PLACE
1	Helps the other technician	Below the floor of the cockpit and passenger cabin and at the wing

I. Preparation

SUBTASK 841-002-A

- (1) Make sure that the aircraft is safe for maintenance.
- (2) Make sure that the hydraulic system is not energized.
- (3) Remove cockpit underfloor access hatch 123BL (AMM MPP 06-41-01/100).
- (4) Remove access panels 551BB and 551CB or 651BB and 651CB ( [AMM MPP 06-44-00/100](#)).
- (5) Remove wing leading edges 511 or 611 ( [AMM TASK 57-41-00-000-801-A/400](#)), 512 or 612 ( [AMM TASK 57-42-00-000-801-A/400](#)), and 513 or 613 ( [AMM TASK 57-43-00-000-801-A/400](#)).
- (6) Remove the pilot seats ([AMM TASK 25-11-01-000-801-A/400](#)).
- (7) Remove the passenger seats in the region of floor panels 251CF and 252BF (AMM TASK 25-21-01-000-801-A/400).
- (8) Remove floor panels 221CF, 221EF, 221GF, 222BF, 222FF, 231BF, 231FF, 231GF, 241BF, 241DF, 251BF, 251CF, 251DF, 251JF, and 252BF (AMM MPP 06-41-02/100).
- (9) On the Circuit Breaker Panel, open the AP1 circuit breaker and attach a DO-NOT-CLOSE tag to it.
- (10) Remove the central maintenance computer (CMC) ([AMM TASK 45-45-01-000-801-A/400](#)) and its respective mounting rack, as required.
- (11) Remove the data acquisition unit (DAU) ( [AMM TASK 31-41-01-000-801-A/400](#)) and its respective mounting rack, as required.
- (12) Remove the two integrated computers (IC 1 and IC 2) ( [AMM TASK 31-42-01-000-801-A/400](#)) and their respective mounting racks, as required.

J. Removal ([Figure 402](#))

SUBTASK 020-002-A

**CAUTION:** IDENTIFY THE POSITIONS OF THE CONTROL CABLES TO INSTALL THEM AGAIN IN THE SAME POSITIONS.

- (1) Install the rig pins to the aileron control system to lock it in the neutral position ([Figure 401](#)).
- (2) Remove the control cable (1) (cockpit underfloor segment) as follows:

**NOTE:** These procedures are applicable to the four control cables (1) (cockpit underfloor segments).

- (a) Release the tension of the control cable (1). To do this, remove and discard the locking clips (25) (refer to DET. H) and loosen the turnbuckle (4).
  - (b) Disconnect the end of the control cable (1) from the chain (refer to DET. D). To do this, disconnect the turnbuckle (4).
  - (c) Disconnect the other end of the control cable (1) from the sector at the torque tube. To do this, remove and discard the cotter pins (27) and (29) and remove pin (28) (refer to DET. J).
  - (d) Remove the control cable (1).
- (3) Remove the control cable (2) (forward segment) as follows:

NOTE: These procedures are applicable to the four control cables (2) (forward segments).

  - (a) Release the tension of the control cable (2). To do this, remove and discard the locking clips (25) (refer to DET. H) and loosen the turnbuckle (3).
  - (b) Remove the cable guard (7). To do this, remove the nut (5) and washer (6) (refer to DET. E).
  - (c) Disconnect the end of the control cable (2) from the control cable (8) (center segment) (DET. B). To do this, disconnect the turnbuckle (3).
  - (d) Disconnect the other end of the control cable (2) from the sector at the torque tube. To do this, remove and discard the cotter pins (27) and (29) and remove pin (28) (refer to DET. J).
  - (e) Remove the control cable (2).
- (4) Remove the inboard control cable (8) (center segment) as follows:

NOTE: These procedures are applicable to the four control cables (8) (center segments).

  - (a) Release the tension of the control cable (8). To do this, remove and discard the locking clips (25) (refer to DET. H) and loosen the turnbuckle (3).
  - (b) Disconnect the end of the control cable (8) from the control cable (2) (forward segment) (DET. B). To do this, disconnect the turnbuckle (3).
  - (c) Remove the cable guards (17) (2 positions).
  - (d) Disconnect the other end of the control cable (8) from the fuselage sector. To do this, remove and discard the cotter pins (27) and (29) and remove pin (28) (refer to DET. J).
  - (e) Remove the inboard control cable (8).
- (5) Remove the outboard control cable (8) (center segment) as follows:

NOTE: These procedures are applicable to the four control cables (8) (center segments).

- (a) Release the tension of the control cable (8). To do this, remove and discard the locking clips (25) (refer to DET. H) and loosen the turnbuckle (3).
  - (b) Disconnect the end of the control cable (8) from the control cable (2) (forward segment) (DET. B). To do this, disconnect the turnbuckle (3).
  - (c) Remove the cable guards (11) (2 positions).
  - (d) Remove the cable guards (17) (2 positions).
  - (e) Disconnect the other end of the control cable (8) from the fuselage sector. To do this, remove and discard the cotter pins (27) and (29) and remove pin (28) (refer to DET. J).
  - (f) Remove the outboard control cable (8).
- (6) Remove the inboard control cable (30) (center segment) as follows:
- NOTE: These procedures are applicable to the four control cables (30) (center segments).
- (a) Release the tension of the control cable (30). To do this, remove and discard the locking clips (25) (refer to DET. H) and loosen the turnbuckle (9).
  - (b) Disconnect the end of the control cable (30) from the control cable (10) (wing segment) (DET. B). To do this, disconnect the turnbuckle (9).
  - (c) Remove the cable guards (17) (2 positions).
  - (d) Disconnect the other end of the control cable (30) from the fuselage sector. To do this, remove and discard the cotter pins (27) and (29) and remove pin (28) (refer to DET. J).
  - (e) Remove the inboard control cable (30).
- (7) Remove the outboard control cable (30) (center segment) as follows:
- NOTE: These procedures are applicable to the four control cables (30) (center segments).
- (a) Release the tension of the control cable (30). To do this, remove and discard the locking clips (25) (refer to DET. H) and loosen the turnbuckle (9).
  - (b) Disconnect the end of the control cable (30) from the control cable (10) (wing segment) (DET. B). To do this, disconnect the turnbuckle (9).
  - (c) Remove the cable guards (11) (2 positions).
  - (d) Remove the cable guards (17) (2 positions).
  - (e) Disconnect the other end of the control cable (30) from the fuselage sector. To do this, remove and discard the cotter pins (27) and (29) and remove pin (28) (refer to DET. J).
  - (f) Remove the outboard control cable (30).

- (8) Remove the control cable (10) (wing segment) as follows:

NOTE: These procedures are applicable to the four control cables (10) (wing segments).

- (a) Release the tension of the control cable (10). To do this, remove and discard the locking clips (25) and loosen the turnbuckle (9).
- (b) Remove the fairing (14). To do this remove the bolts (15) and washers (16) (4 positions).
- (c) Remove the cable guards (12) (3 positions) and (13) (2 positions).

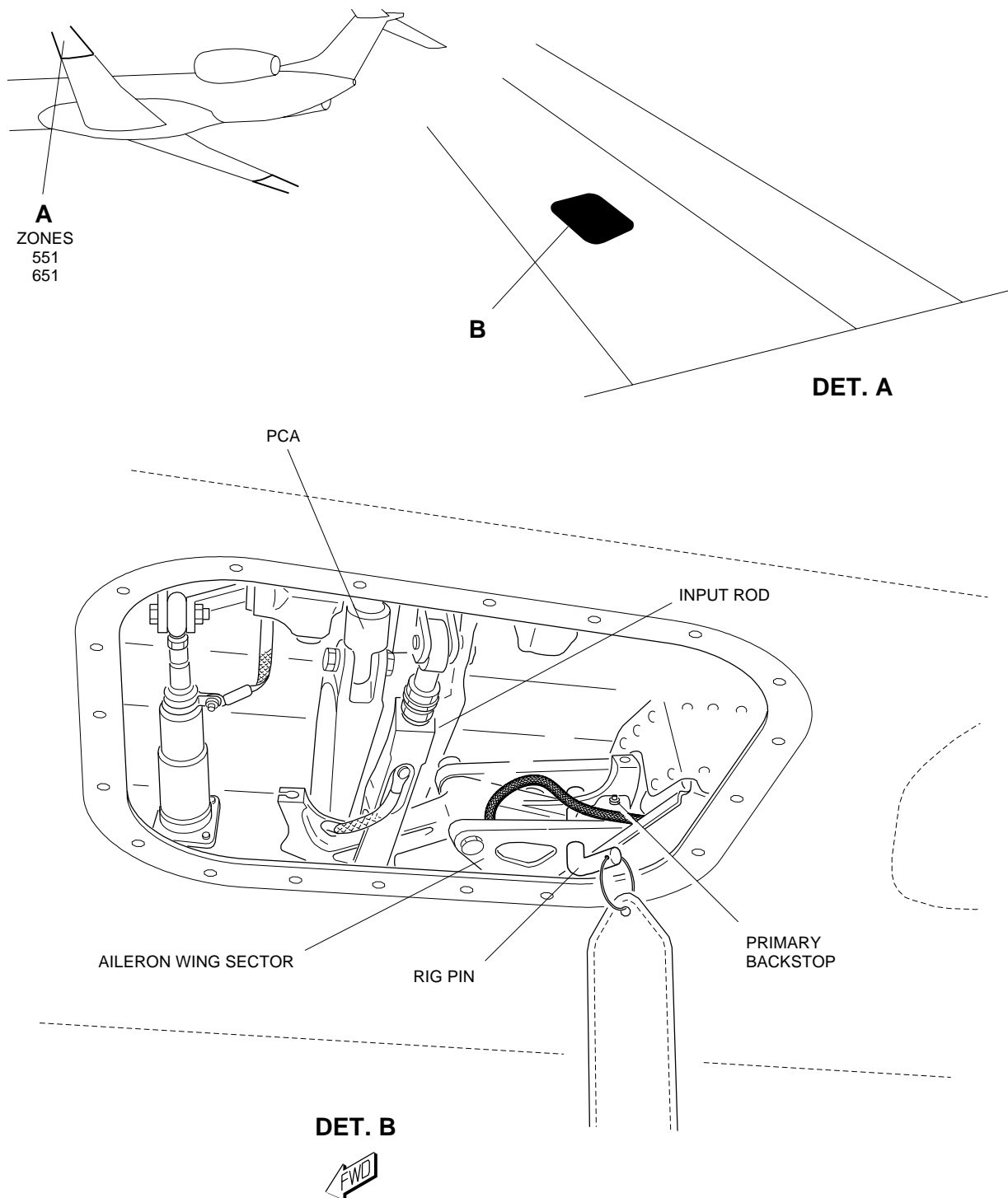
NOTE: Be careful not to remove cable guards completely as these are in a difficult position to find the hole and reinstall the guard.

- (d) Remove the nylon grommets (18) and release the control cable (10) from the supports (19) (4 positions).
- (e) Disconnect the end of the control cable (10) from the wing sector. To do this, remove and discard the cotter pins (27) and (29) and remove pin (28) (refer to DET. J).
- (f) Remove the plate (22) and gasket (24) on the control cable (10) and the pressure seal (23). Discard the pressure seal (23).
- (g) Remove the control cable (10).

EFFECTIVITY: ALL

Rig Pins Location in the Fuselage and Wing

Figure 401



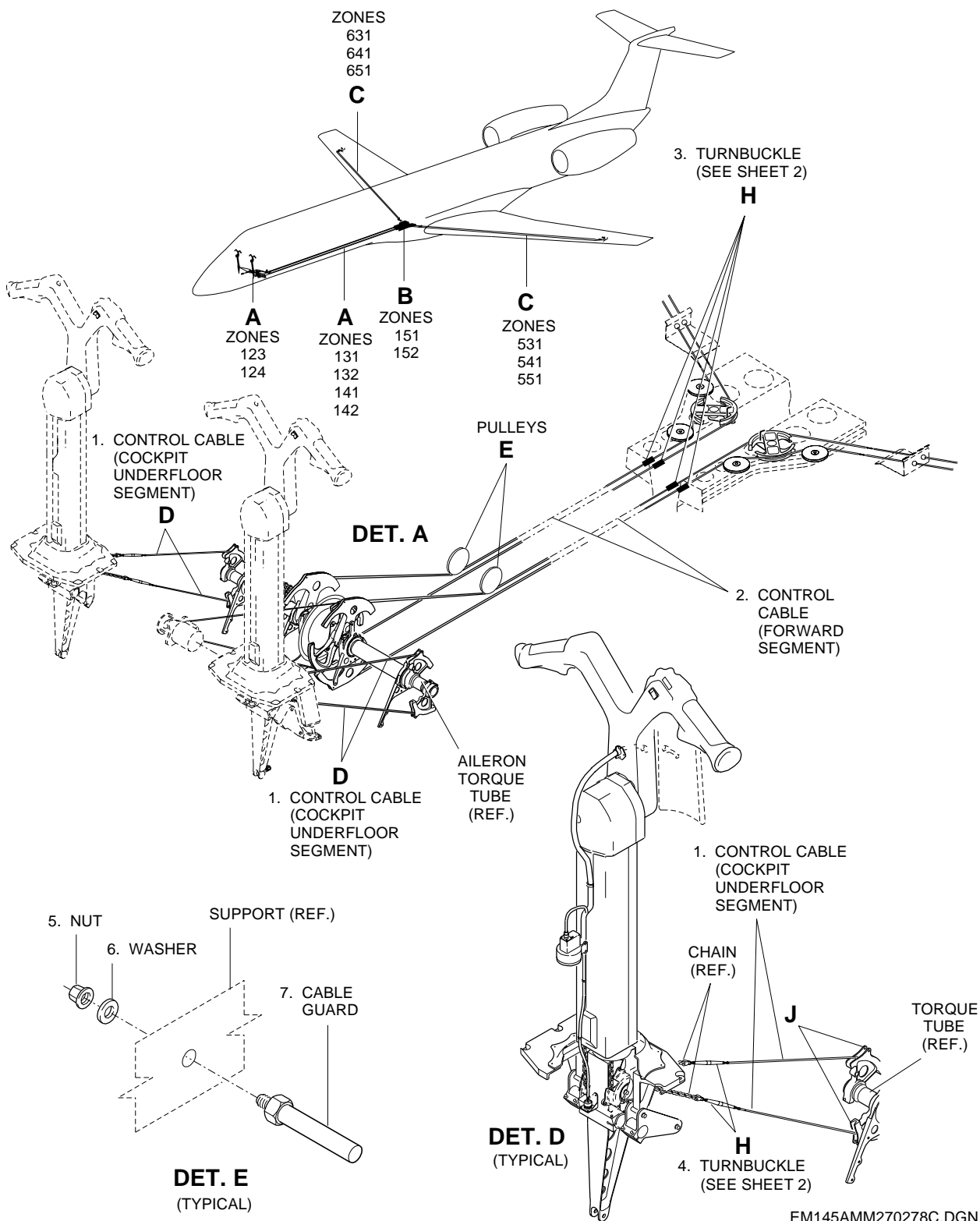
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EFFECTIVITY: ALL

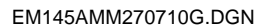
Control Cables of the Aileron Control System - Removal/Installation

Figure 402 - Sheet 1



EM145AMM270278C.DGN

Figure 402 - Sheet 2



TASK 27-11-01-400-801-A  
EFFECTIVITY: ALL

### 3. CONTROL CABLES - INSTALLATION

#### A. General

- (1) This procedure gives the instructions to install the control cables of the aileron control system.

#### B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-01/100	-
AMM MPP 06-41-02/100	-
AMM MPP 06-44-00/100	- COMPONENT LOCATION
AMM TASK 25-11-01-400-801-A/400	PILOT SEAT - INSTALLATION
AMM TASK 25-21-01-400-801-A/400	-
AMM TASK 27-10-00-700-801-A/500	AILERON ADJUSTMENT AND CHECK
AMM TASK 27-11-01-700-801-A/500	-
AMM TASK 28-41-00-200-801-A/600	-
AMM TASK 31-41-01-400-801-A/400	DATA ACQUISITION UNIT - INSTALLATION
AMM TASK 31-42-01-400-801-A/400	INTEGRATED COMPUTER (IC-600) - INSTALLATION
AMM TASK 45-45-01-400-801-A/400	CENTRAL MAINTENANCE COMPUTER (CMC) - INSTALLATION
AMM TASK 57-41-00-400-801-A/400	LEADING EDGE I - INSTALLATION
AMM TASK 57-42-00-400-801-A/400	LEADING EDGE II - INSTALLATION
AMM TASK 57-43-00-400-801-A/400	LEADING EDGE III - INSTALLATION
IPC 27-11-00	AILERON PRIMARY MECHANICAL CONTROL
IPC 27-11-03	TORQUE TUBE

#### C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
123	123BL	Below the cockpit floor
124		Below the cockpit floor
131		Below the passenger cabin floor
132		Below the passenger cabin floor
141		Below the passenger cabin floor
142		Below the passenger cabin floor
151		Below the passenger cabin floor
152		Below the passenger cabin floor
221	221CF	Below the cockpit floor
221	221EF	Below the cockpit floor
221	221GF	Below the cockpit floor

(Continued)

ZONE	PANEL/DOOR	LOCATION
222	222BF	Below the cockpit floor
222	222FF	Below the cockpit floor
231	231BF	Below the passenger cabin floor
231	231FF	Below the passenger cabin floor
231	231GF	Below the passenger cabin floor
241	241BF	Below the passenger cabin floor
241	241DF	Below the passenger cabin floor
251	251BF	Below the passenger cabin floor
251	251CF	Below the passenger cabin floor
251	251DF	Below the passenger cabin floor
251	251JF	Below the passenger cabin floor
252	252BF	Below the passenger cabin floor
531		LH Wing
541		LH Wing
551	551BB	LH Wing
551	551CB	LH Wing
631		RH Wing
641		RH Wing
651	651BB	RH Wing
651	651CB	RH Wing

D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
<a href="#">GSE 058</a>	Kit, rig pin, flight controls	To lock the aileron control system in the neutral position	

E. Auxiliary Items

Not Applicable

F. Consumable Materials

Not Applicable

G. Expendable Parts

ITEM	IPC REFERENCE (VENDOR REFERENCE)	QTY
Cotter pin	IPC 27-11-03	AR
Locking clip	IPC 27-11-00	24
Pressure seal	IPC 27-11-00	8

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Below the floor of the cockpit and passenger cabin, and at the wing
1	Helps the other technician	Below the floor of the cockpit and passenger cabin, and at the wing

I. Installation (Figure 402)

*SUBTASK 420-002-A*

**CAUTION:** THE CONTROL CABLES MUST BE INSTALLED IN THE SAME POSITIONS AS THOSE THEY WERE REMOVED FROM. REFER TO THEIR IDENTIFICATION POSITIONS.

- (1) Install the control cable (1) (cockpit underfloor segment) as follows:

**NOTE:** These procedures are applicable to the four control cables (1) (cockpit underfloor segments).

- (a) Connect the end of the control cable (1) to the sector at the torque tube with new cotter pins (27) and (29), and pin (28) (refer to DET. J).
- (b) Connect the other end of the control cable (1) to the chain (DET. D) through the turnbuckle (4).

- (2) Install the control cable (2) (forward segment) as follows:

**NOTE:** These procedures are applicable to the four control cables (2) (forward segments).

- (a) Connect the end of the control cable (2) to the sector at the torque tube with new cotter pins (27) and (29), and pin (28) (refer to DET. J).
- (b) Connect the other end of the control cable (2) to the control cable (8) (center segment) through the turnbuckle (3).
- (c) Install the cable guard (7) and attach it with the washer (6) and nut (5).

- (3) Install the inboard control cable (8) (center segment) as follows:

**NOTE:** These procedures are applicable to the four control cables (8) (center segments).

- (a) Connect the end of the control cable (8) to the fuselage sector with new cotter pins (27) and (29) and pin (28) (refer to DET. J).
- (b) Connect the other end of the control cable (8) to the control cable (2) (forward segment) through the turnbuckle (3).
- (c) Install the cable guards (17) (2 positions).

- (4) Install the outboard control cable (8) (center segment) as follows:

NOTE: These procedures are applicable to the four control cables (8) (center segments).

- (a) Connect the end of the control cable (8) to the fuselage sector with new cotter pins (27) and (29) and pin (28) (refer to DET. J).
  - (b) Connect the other end of the control cable (8) to the fuselage control cable (2) (forward segment) through the turnbuckle (3).
  - (c) Install the cable guards (17) (2 positions).
  - (d) Install the cable guards (11) (2 positions).
- (5) Install the inboard control cable (30) (center segment) as follows:

NOTE: These procedures are applicable to the four control cables (30) (center segments).

- (a) Connect the end of the control cable (30) to the fuselage sector with new cotter pins (27) and (29) and pin (28) (refer to DET. J).
  - (b) Connect the other end of the control cable (30) to the control cable (10) (wing segment) through the turnbuckle (9).
  - (c) Install the cable guards (17) (2 positions).
- (6) Install the outboard control cable (30) (center segment) as follows:

NOTE: These procedures are applicable to the four control cables (30) (center segments).

- (a) Connect the end of the control cable (30) to the fuselage sector with new cotter pins (27) and (29) and pin (28) (refer to DET. J).
  - (b) Connect the other end of the control cable (30) to the fuselage control cable (10) (wing segment) through the turnbuckle (9).
  - (c) Install the cable guards (17) (2 positions).
  - (d) Install the cable guards (11) (2 positions).
- (7) Install the control cable (10) (wing segment) as follows:

NOTE: These procedures are applicable to the four control cables (10) (wing segment).

- (a) Connect the end of the control cable (10) to the fuselage sector with new cotter pins (27) and (29), and pin (28) (refer to DET. J).
- (b) Put the plate (22) and gasket (24) on the control cable (10).

NOTE: To prevent air leakage, make sure that the rubber with smaller diameter of the control cable is turned to the semi-sphere seal.

CAUTION: MAKE SURE THAT THE CONTROL CABLE IS CORRECTLY INSTALLED IN THE SECTOR GROOVE AND UNDER THE CABLE GUARDS.

- (c) Connect the other end of the control cable (10) to the wing sector with new cotter pins (27) and (29), and pin (28) (refer to DET. J).
- (d) Install the cable guards (12) (3 positions) and (13) (2 positions).
- (e) Put the control cable (10) in the supports (19) at the wing and install the nylon grommets (18) (4 positions). Refer to DET. G.
- (f) Put a new pressure seal (23) between the plate (22) and gasket (24) on the control cable (10). Refer to DET. F.
- (g) Finger-tighten the bolts (20) of the pressure seal assembly with its washers (21).
- (h) Using the turnbuckle, stretch the control cable, but do not apply tension at this time.
- (i) Remove the rig pins from the aileron control system.
- (j) Move the control yoke to the left and to the right aligning the pressure seal with the cable.
- (k) Tighten the bolt of the pressure seal assembly (20) until it touches the structure surface and turn the bolt (20) by a 1/4 turn more.
- (l) Move the control yoke to the left and to the right, making sure that the cable is moving freely and smoothly after the installation of the new pressure seal.
- (m) Install the fairing (14) on the pulley at the wing with the bolts (15) and washers (16).

J. Follow-on

*SUBTASK 842-002-A*

- (1) Apply tension to the control cables of the aileron control system (AMM TASK 27-11-01-700-801-A/500).  
  
NOTE: For new cables, check the tension of the aileron control cable according to the interval determined in the MRBR.
- (2) Install new locking clips (25) (refer to DET. H) to the turnbuckles of the control cables.
- (3) Remove the rig pins from the aileron control system (Figure 401).
- (4) On the Circuit Breaker Panel, close the AP1 circuit breaker and remove the DO-NOT-CLOSE tag from it.
- (5) Do a check of the aileron control system ([AMM TASK 27-10-00-700-801-A/500](#)).
- (6) Install the two integrated computers (IC 1 and IC 2) ( [AMM TASK 31-42-01-400-801-A/400](#)) and their respective mounting racks.
- (7) Install the data acquisition unit (DAU) ( [AMM TASK 31-41-01-400-801-A/400](#)) and its respective mounting rack.
- (8) Install the central maintenance computer (CMC) ( [AMM TASK 45-45-01-400-801-A/400](#)) and its respective mounting rack.

- (9) Do an inspection of the fuel quantity indication harness (AMM TASK 28-41-00-200-801-A/600).

NOTE: The inspection of fuel quantity indication harness is a part of Critical Design Configuration Control Limitations (CDCCL) in the Airworthiness Limitations (Section 6) of the Maintenance Review Board Report (MRB).

- (10) Install floor panels 221CF, 221EF, 221GF, 222BF, 222FF, 231BF, 231FF, 231GF, 241BF, 241DF, 251BF, 251CF, 251DF, 251JF and 252BF (AMM MPP 06-41-02/100).
- (11) Install the passenger seats in the region of floor panels 251CF and 252BF (AMM TASK 25-21-01-400-801-A/400).
- (12) Install the pilot seats ([AMM TASK 25-11-01-400-801-A/400](#)).
- (13) Install wing leading edges 511 or 611 ( [AMM TASK 57-41-00-400-801-A/400](#)), 512 or 612 ( [AMM TASK 57-42-00-400-801-A/400](#)), and 513 or 613 ( [AMM TASK 57-43-00-400-801-A/400](#)).
- (14) Install access panels 551BB and 551CB or 651BB and 651CB ( [AMM MPP 06-44-00/100](#)).
- (15) Install cockpit underfloor access hatch 123BL (AMM MPP 06-41-01/100).



TASK 27-11-01-000-802-A  
EFFECTIVITY: ALL

#### 4. AUTOPILOT CONTROL CABLE - REMOVAL

##### A. General

- (1) This procedure gives the instructions to remove the control cables of the autopilot control system.

##### B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-01/100	-
AMM MPP 06-41-02/100	-
AMM TASK 25-11-01-000-801-A/400	PILOT SEAT - REMOVAL
AMM TASK 31-41-01-000-801-A/400	DATA ACQUISITION UNIT - REMOVAL
AMM TASK 31-42-01-000-801-A/400	INTEGRATED COMPUTER (IC-600) - REMOVAL
AMM TASK 45-45-01-000-801-A/400	CENTRAL MAINTENANCE COMPUTER (CMC) - REMOVAL
IPC 22-10-03	AILERON SERVO
IPC 27-11-00	AILERON PRIMARY MECHANICAL CONTROL

##### C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
123	123BL	Below the cockpit floor

##### D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
GSE 058	Kit, rig pin, flight controls	To lock the aileron control system in the neutral position	

##### E. Auxiliary Items

Not Applicable

##### F. Consumable Materials

Not Applicable

##### G. Expendable Parts

ITEM	IPC REFERENCE (VENDOR REFERENCE)	QTY
Locking clip	IPC 22-10-03	4
Cotter pin	IPC 27-11-00	4

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Below the floor of the cockpit cabin
1	Helps the other technician	Below the floor of the cockpit cabin

I. Preparation

**SUBTASK 841-003-A**

- (1) Make sure that the aircraft is safe for maintenance.
- (2) Make sure that the hydraulic system is not energized.
- (3) On the Circuit Breaker Panel, open the AP1 circuit breaker and attach a DO-NOT-CLOSE tag to it.
- (4) Remove cockpit underfloor access hatch 123BL (AMM MPP 06-41-01/100).
- (5) Remove the pilot seats ([AMM TASK 25-11-01-000-801-A/400](#)).
- (6) Remove floor panels 221EF, 221FF and 221GF (AMM MPP 06-41-02/100).
- (7) Remove the central maintenance computer (CMC) ([AMM TASK 45-45-01-000-801-A/400](#)) and its respective mounting rack.
- (8) Remove the data acquisition unit (DAU) ( [AMM TASK 31-41-01-000-801-A/400](#)) and its respective mounting rack, as required.
- (9) Remove the two integrated computers (IC 1 and IC 2) ( [AMM TASK 31-42-01-000-801-A/400](#)) and their respective mounting racks, as required.
- (10) Install the rig pins to the aileron control system to lock it in the neutral position, as required.

J. Removal ([Figure 403](#))

**SUBTASK 020-003-A**

**CAUTION:** IDENTIFY THE POSITIONS OF THE CONTROL CABLES TO INSTALL THEM AGAIN IN THE SAME POSITIONS.

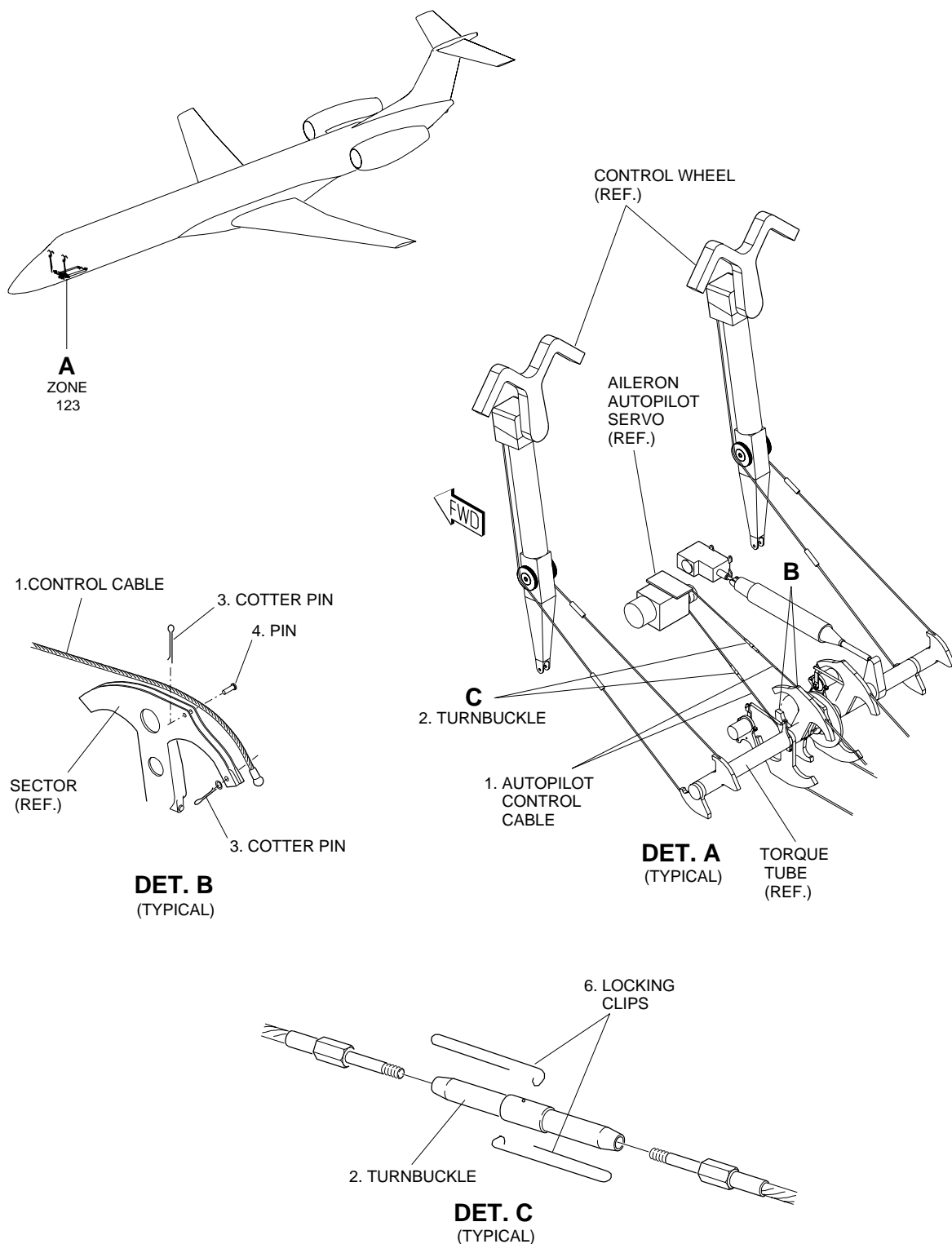
**NOTE:** These procedures are applicable to the two autopilot control cables (1).

- (1) Release the tension of the autopilot control cable (1). To do this, remove and discard the locking clips (6) (refer to DET. C) and loosen the turnbuckle (2).
- (2) Disconnect the end of the autopilot control cable (1) from the control cable of the autopilot servo. To do this, disconnect the turnbuckle (2).
- (3) Disconnect the other end of the autopilot control cable (1) from the sector at the torque tube. To do this, remove and discard the cotter pins (3) and (5) and remove pin (4) (refer to DET. B).
- (4) Remove the autopilot control cable (1).

EFFECTIVITY: ALL

Autopilot Control Cable - Removal/Installation

Figure 403



145AMM270281.MCE

TASK 27-11-01-400-802-A

EFFECTIVITY: ALL

## 5. AUTOPILOT CONTROL CABLE - INSTALLATION

### A. General

- (1) This procedure gives the instructions to install the control cables of the autopilot control system.

### B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-01/100	-
AMM MPP 06-41-02/100	-
<a href="#">AMM TASK 25-11-01-400-801-A/400</a>	PILOT SEAT - INSTALLATION
AMM TASK 27-11-01-700-802-A/500	-
AMM TASK 28-41-00-200-801-A/600	-
<a href="#">AMM TASK 31-41-01-400-801-A/400</a>	DATA ACQUISITION UNIT - INSTALLATION
<a href="#">AMM TASK 31-42-01-400-801-A/400</a>	INTEGRATED COMPUTER (IC-600) - INSTALLATION
<a href="#">AMM TASK 45-45-01-400-801-A/400</a>	CENTRAL MAINTENANCE COMPUTER (CMC) - INSTALLATION
IPC 22-10-03	AILERON SERVO
IPC 27-11-00	AILERON PRIMARY MECHANICAL CONTROL

### C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
123	123BL	Below the cockpit floor

### D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
<a href="#">GSE 058</a>	Kit, rig pin, flight controls	To lock the aileron control system in the neutral position	

### E. Auxiliary Items

Not Applicable

### F. Consumable Materials

Not Applicable

### G. Expendable Parts

ITEM	IPC REFERENCE (VENDOR REFERENCE)	QTY
Locking clip	IPC 22-10-03	4
Cotter pin	IPC 27-11-00	4

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Below cockpit floor
1	Helps the other technician	Below cockpit floor

I. Installation (Figure 403)

*SUBTASK 420-003-A*

**CAUTION:** THE CONTROL CABLES MUST BE INSTALLED IN THE SAME POSITIONS AS THOSE THEY WERE REMOVED FROM. REFER TO THEIR IDENTIFICATION POSITIONS.

**NOTE:** These procedures are applicable to the two autopilot control cables (1).

- (1) Connect the end of the autopilot control cable (1) to the sector at the torque tube with new cotter pins (3) and (5) and pin (4) (refer to DET. B).
- (2) Connect the other end of the control autopilot cable (1) to the control cable of the autopilot servo (refer to DET. C) through the turnbuckle (2).

J. Follow-on

*SUBTASK 842-003-A*

- (1) Apply tension to the control cables of the autopilot control system (AMM TASK 27-11-01-700-802-A/500).
- (2) Install new locking clips (6) to the turnbuckle (2) (refer to DET. C).
- (3) Remove the rig pins from the aileron control system.
- (4) On the Circuit Breaker Panel, close the AP1 circuit breaker and remove the DO-NOT-CLOSE tag from it.
- (5) Install the two integrated computers (IC 1 and IC 2) ( [AMM TASK 31-42-01-400-801-A/400](#)) and their respective mounting racks.
- (6) Install the data acquisition unit (DAU) ( [AMM TASK 31-41-01-400-801-A/400](#)) and its respective mounting rack.
- (7) Install the central maintenance computer (CMC) ( [AMM TASK 45-45-01-400-801-A/400](#)) and its respective mounting rack.
- (8) Do an inspection of the fuel quantity indication harness (AMM TASK 28-41-00-200-801-A/600).

**NOTE:** The inspection of fuel quantity indication harness is part of Critical Design Configuration Control Limitations (CDCCL) in the Airworthiness Limitations of the Aircraft Maintenance Program.

- (9) Install floor panels 221EF, 221FF, and 221GF (AMM MPP 06-41-02/100).
- (10) Install the pilot seats ([AMM TASK 25-11-01-400-801-A/400](#)).
- (11) Install cockpit underfloor access hatch 123BL (AMM MPP 06-41-01/100).

