

## STARTER CONTROL VALVE - REMOVAL/INSTALLATION

*EFFECTIVITY: ALL*

### 1. General

- A. This section gives the procedures to remove/install the SCV (Starter Control Valve) and the SCV Filter.
- 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
80-10-02-000-801-A	STARTER CONTROL VALVE - REMOVAL	ALL
80-10-02-400-801-A	STARTER CONTROL VALVE - INSTALLATION	ALL
80-10-02-000-802-A	STARTER CONTROL-VALVE FILTER - REMOVAL	ALL
80-10-02-400-802-A	STARTER CONTROL-VALVE FILTER - INSTALLATION	ALL

TASK 80-10-02-000-801-A

EFFECTIVITY: ALL

## 2. STARTER CONTROL VALVE - REMOVAL

### A. General

(1) This procedure its applicable to the LH and RH engines.

### B. References

REFERENCE	DESIGNATION
<a href="#">AMM MPP 71-00-00/200</a>	- MAINTENANCE PRACTICES
<a href="#">AMM TASK 71-12-01-000-801-A/400</a>	ENGINE LOWER COWLING - OPENING

### C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
413	Lower cowling	LH engine
423	Lower cowling	RH engine

### D. Tools and Equipment

Not Applicable

### E. Auxiliary Items

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Ladder	Access to the engine	1

### F. Consumable Materials

Not Applicable

### G. Expandable Parts

Not Applicable

### H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Engine

### I. Preparation

*SUBTASK 841-002-A*

**WARNING: BEFORE YOU DO THE TASK, OBEY THE SAFETY PRECAUTIONS GIVEN IN [AMM MPP 71-00-00/200](#) TO PREVENT INJURY TO PERSONS AND DAMAGE TO THE MATERIAL.**

(1) On the circuit breaker panel, open these circuit breakers and attach a DO-NOT-CLOSE tag to them:

- START 1/2.

- (2) Put a ladder in the work area.
- (3) Open the lower cowling ( [AMM TASK 71-12-01-000-801-A/400](#)) to get access to the engine.
- (4) On the air conditioning/pneumatic panel (on the overhead panel), close all the bleed valves and wait 3 (three) minutes minimum to make sure that the residual pressure in the duct is released.

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

*SUBTASK 020-002-A*

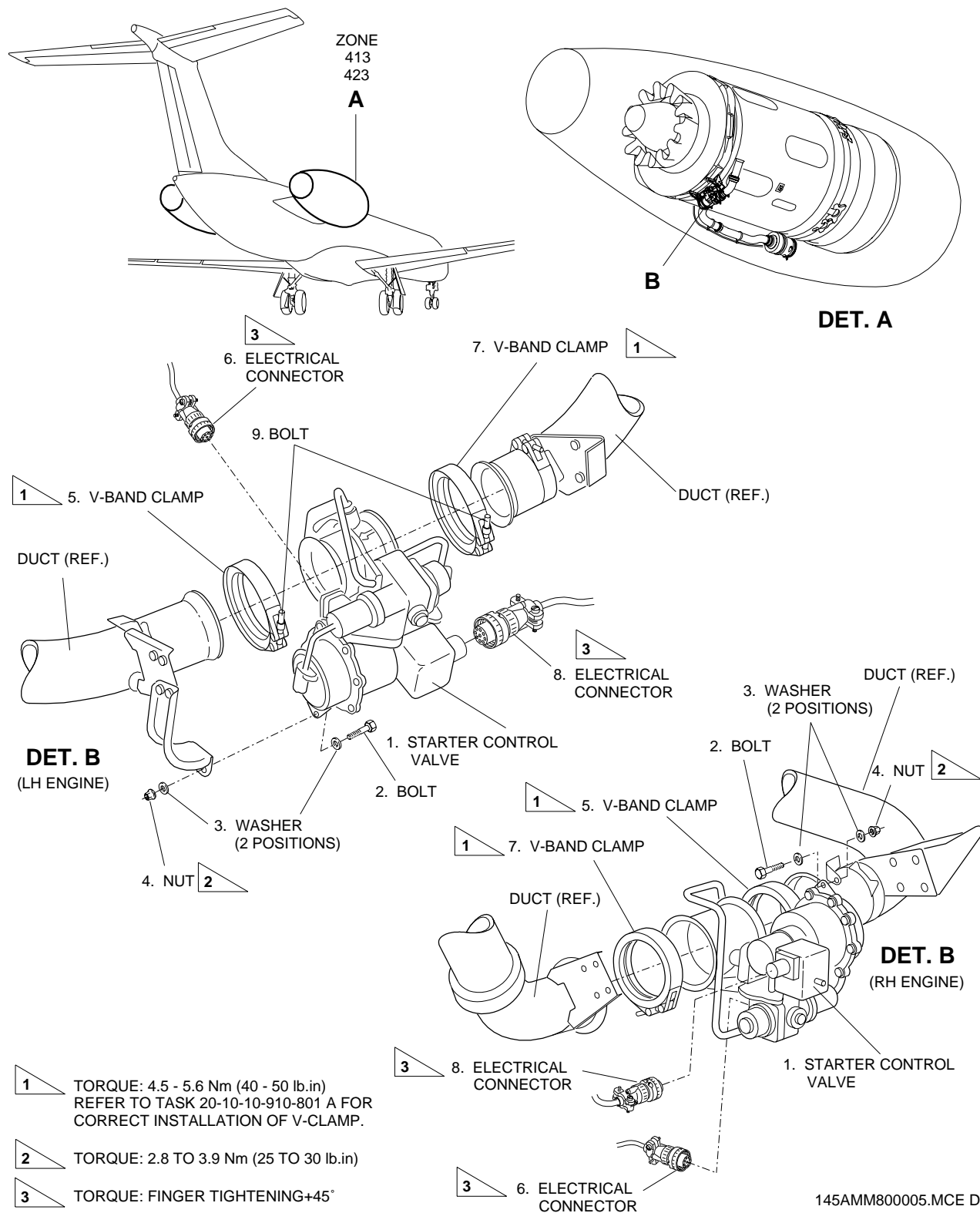
**WARNING: INJURY TO PERSONS CAN OCCUR IF THE REMAINING PRESSURE IN THE DUCT IS NOT RELEASED BEFORE THE STARTER CONTROL VALVE IS REMOVED.**

- (1) Disconnect the electrical connectors (6) and (8) from the SCV.
- (2) Release the V-band clamps (5) and (7).
- (3) Remove the bolt (2), washer (3), and nut (4) which attach the SCV to the engine support.
- (4) Remove the SCV.
- (5) Install protection caps to the electrical connectors (6) and (8).
- (6) Install caps to the ports of the starter air ducts.

EFFECTIVITY: ALL

Starter Control Valve - Removal/Installation

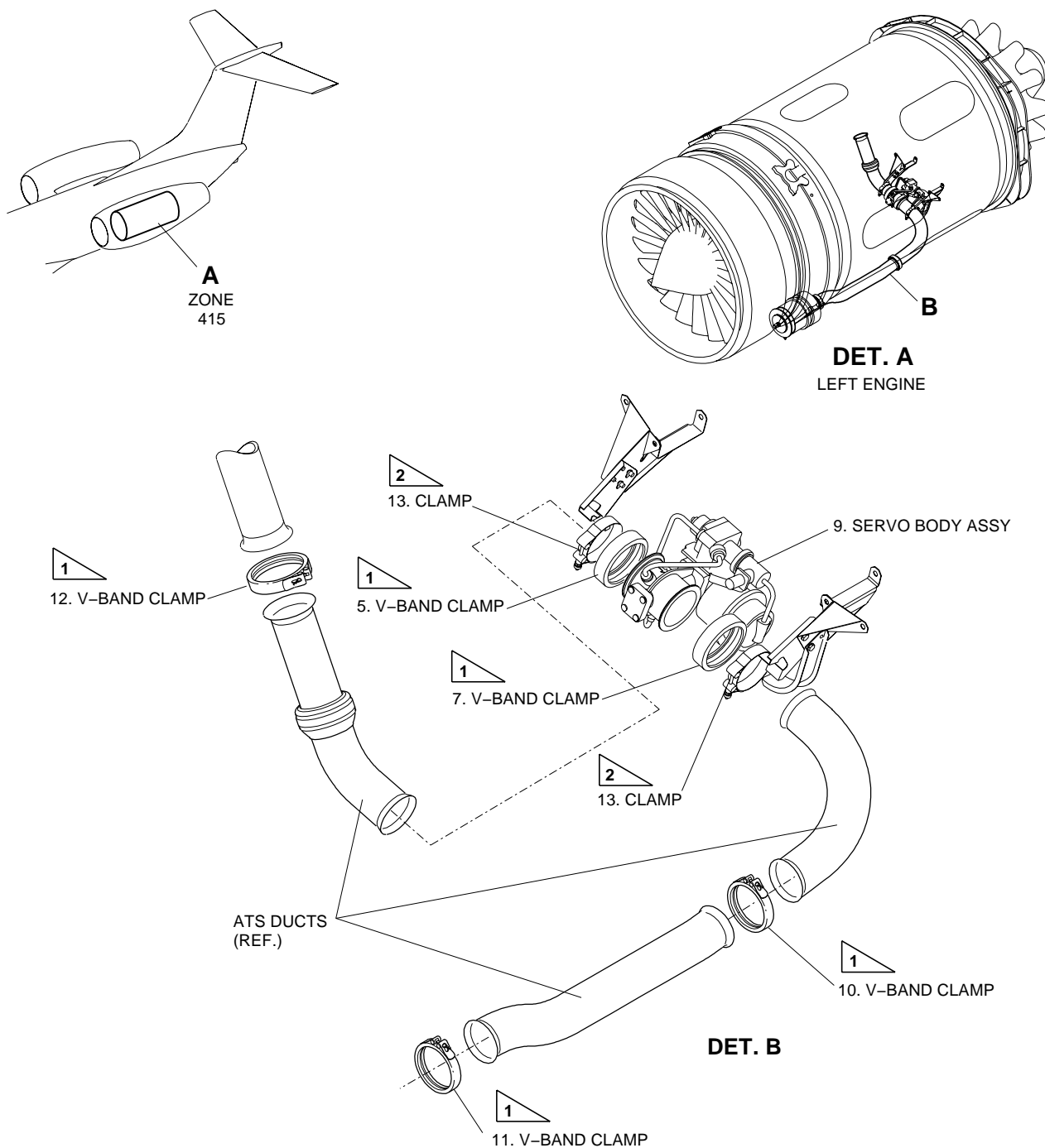
Figure 401 - Sheet 1



EFFECTIVITY: ALL

Starter Control Valve - Removal/Installation

Figure 401 - Sheet 2



**1** TORQUE: 4.5 – 5.6 Nm (40 – 50 lb.in)  
REFER TO TASK 20-10-10-910-801 A FOR CORRECT INSTALLATION OF V-CLAMP.

**2** TORQUE: 2.8 Nm (25 lb.in) PLUS RUNNING  
TORQUE UNTIL THE CLAMP IS FULLY ENGAGED

145AMM800019.MCE

TASK 80-10-02-400-801-A

EFFECTIVITY: ALL

### 3. STARTER CONTROL VALVE - INSTALLATION

#### A. General

(1) This procedure is applicable to the LH and RH engines.

#### B. References

REFERENCE	DESIGNATION
<a href="#">AMM MPP 71-00-00/200</a>	- MAINTENANCE PRACTICES
<a href="#">AMM TASK 71-12-01-400-801-A/400</a>	ENGINE LOWER COWLING - CLOSING

#### C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
413	Lower cowling	LH engine
423	Lower cowling	RH engine

#### D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Torque wrench	To apply torque	

#### E. Auxiliary Items

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Ladder	Access to the engine	1

#### F. Consumable Materials

Not Applicable

#### G. Expandable Parts

Not Applicable

#### H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Engine

I. Installation (Figure 401)

SUBTASK 420-002-A

**WARNING:** • BEFORE YOU DO THE TASK, OBEY THE SAFETY PRECAUTIONS GIVEN IN **AMM MPP 71-00-00/200** TO PREVENT INJURY TO PERSONS AND DAMAGE TO MATERIAL.

- INJURY TO PERSONS CAN OCCUR IF THE REMAINING PRESSURE IN THE DUCT IS NOT RELEASED BEFORE THE STARTER CONTROL VALVE IS REMOVED.

- (1) Remove the caps from the ports of the starter air ducts.
- (2) Remove the protection caps from the electrical connectors.

**CAUTION:** • THE INCORRECT ALIGNMENT OF THE DUCTS WILL MAKE IT NECESSARY TO APPLY TOO MUCH TORQUE AND CAUSE AN UNWANTED PRELOAD.

- WHILE YOU TIGHTEN THE V-BAND CLAMP, HAVE THE DUCT WEIGHT MANUALLY HELD.
- MAKE SURE THAT THERE IS A MINIMUM GAP OF 0.1 in (2.54 mm) BETWEEN THE V-BAND CLAMP (5) AND THE AIR-COOLED OIL COOLER LINE TO PREVENT A POSSIBLE CHAFING AND OIL LEAKAGE.
- MAKE SURE THAT THE CLAMP BOLT (9) IS NOT ASSEMBLED VERTICALLY TO PREVENT CHAFING AND POSSIBLE DAMAGE TO THE LOWER ENGINE COWLING.

- (3) Put the SCV at the air-duct starter lines and attach it with the V-band clamps (5) and (7). Tighten the clamps to the torque shown in (Figure 401).

**NOTE:** To get the minimum gap of 0.1 in (2.54 mm), if necessary, loosen the clamps and/or the support bolts of the ATS duct. Then adjust the gap and tighten the assembly again.

**CAUTION:** DURING THE LH ENGINE ASSEMBLY, MAKE SURE THAT THERE IS A MAXIMUM GAP OF 3.0 mm BETWEEN THE SCV-SERVO BODY ASSEMBLY (9) AND THE ENGINE REAR MOUNTING RING TO PREVENT CHAFING WITH THE LOWER ENGINE COWLING.

- (4) Install the bolt (2), washers (3), and nut (4). Tighten the bolts to the torque shown in (Figure 401).
- (5) If necessary, loosen the V-band clamps (10), (11), and (12), and the clamps (13).
- (6) Tighten the V-band clamps (5) and (7) to the torque shown in (Figure 401).
- (7) Connect the electrical connectors (6) and (8) to the SCV.

J. Follow-on

*SUBTASK 842-002-A*

- (1) Close the lower cowling ( [AMM TASK 71-12-01-400-801-A/400](#)).
- (2) Remove the ladder.
- (3) On the circuit breaker panel, close these circuit breakers and remove the DO-NOT-CLOSE tag from them:
  - START 1/2.



TASK 80-10-02-000-802-A

EFFECTIVITY: ALL

#### 4. STARTER CONTROL-VALVE FILTER - REMOVAL

##### A. General

(1) This procedure its applicable to the LH and RH engines.

##### B. References

REFERENCE	DESIGNATION
<a href="#">AMM MPP 71-00-00/200</a>	- MAINTENANCE PRACTICES
<a href="#">AMM TASK 71-12-01-000-801-A/400</a>	ENGINE LOWER COWLING - OPENING

##### C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
413	Lower cowling	LH engine
423	Lower cowling	RH engine

##### D. Tools and Equipment

Not Applicable

##### E. Auxiliary Items

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Ladder	Access to the engine	1

##### F. Consumable Materials

Not Applicable

##### G. Expandable Parts

Not Applicable

##### H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Engine

##### I. Preparation

*SUBTASK 841-003-A*

**WARNING: BEFORE YOU DO THE TASK, OBEY THE SAFETY PRECAUTIONS GIVEN IN [AMM MPP 71-00-00/200](#) TO PREVENT INJURY TO PERSONS AND DAMAGE TO THE MATERIAL.**

(1) On the circuit breaker panel, open these circuit breakers and attach a DO-NOT-CLOSE tag to them:

- START 1/2.

- (2) Put the ladder in the work area.
- (3) Open the lower cowling ( [AMM TASK 71-12-01-000-801-A/400](#)) to get access to the engine.
- (4) On the air conditioning/pneumatic panel (on the overhead panel), close all the bleed valves and wait 3 (three) minutes minimum to make sure that the residual pressure in the duct is released.

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

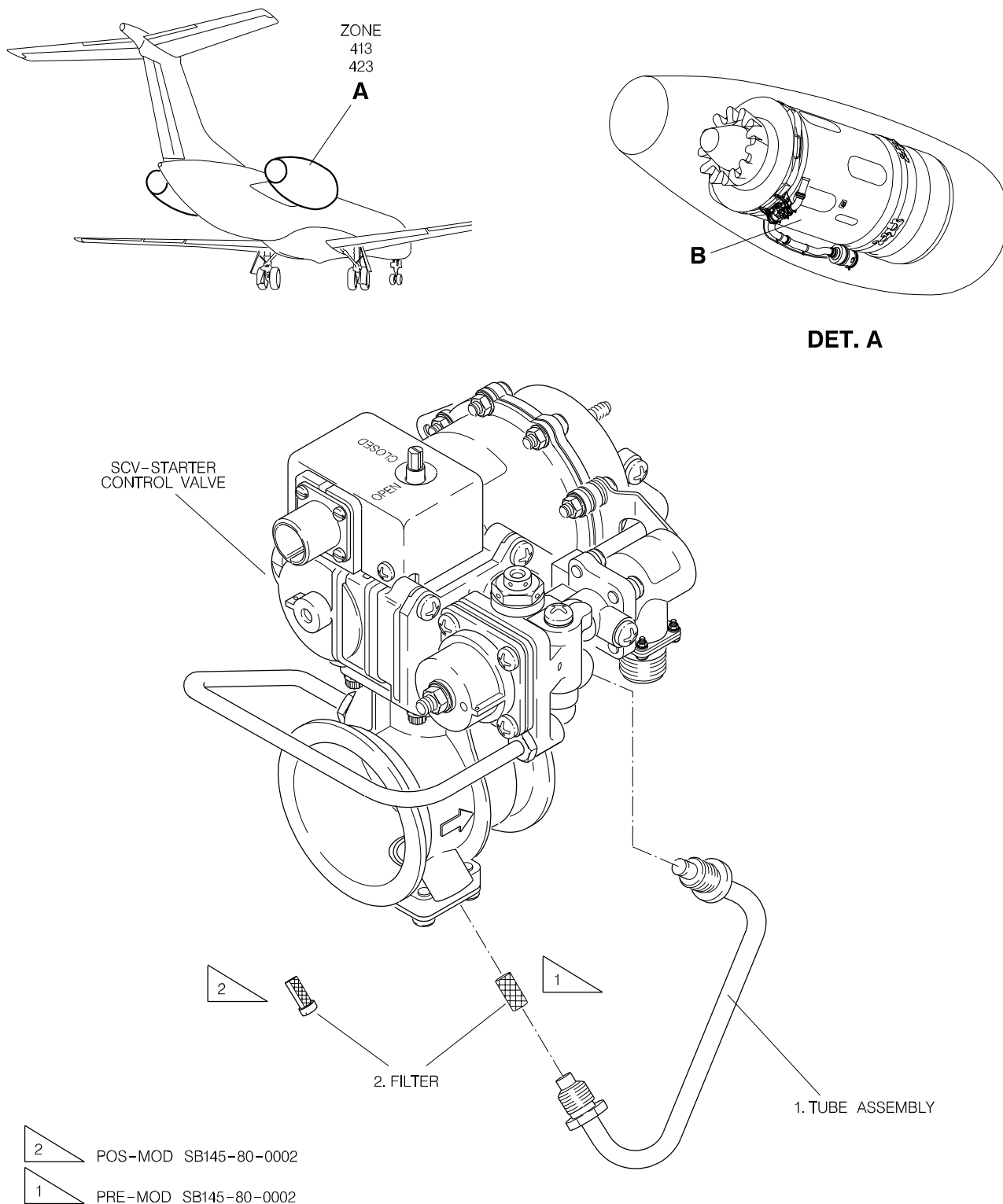
*SUBTASK 020-003-A*

- (1) Remove the tube assembly (1).
- (2) Remove the filter (2).

EFFECTIVITY: ALL

Starter Control-Valve Filter - Removal/Installation

Figure 402



AMM800015.MCE A

TASK 80-10-02-400-802-A

EFFECTIVITY: ALL

## 5. STARTER CONTROL-VALVE FILTER - INSTALLATION

### A. General

(1) This procedure is applicable to the LH and RH engines.

### B. References

REFERENCE	DESIGNATION
<a href="#">AMM MPP 71-00-00/200</a>	- MAINTENANCE PRACTICES
<a href="#">AMM TASK 71-12-01-400-801-A/400</a>	ENGINE LOWER COWLING - CLOSING
<a href="#">S.B.145-80-0002</a>	-

### C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
413	Lower cowling	LH engine
423	Lower cowling	RH engine

### D. Tools and Equipment

Not Applicable

### E. Auxiliary Items

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Ladder	Access to the engine	1

### F. Consumable Materials

Not Applicable

### G. Expandable Parts

Not Applicable

### H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Engine

### I. Installation (Figure 402)

**SUBTASK 420-003-A**

**WARNING: BEFORE YOU DO THE TASK, OBEY THE SAFETY PRECAUTIONS GIVEN IN [AMM MPP 71-00-00/200](#) TO PREVENT INJURY TO PERSONS AND DAMAGE TO THE MATERIAL.**

(1) (For aircraft PRE-MOD. [S.B.145-80-0002](#)) Install the filter (2).

- (2) (For aircraft POST-MOD. [S.B.145-80-0002](#)) Install the filter assembly with the filter (2) turned downstream. After installation, the shield must be visible (filter assembly hidden) from the inlet port.
- (3) Install the tube assembly (1).

J. Follow-on

*SUBTASK 842-003-A*

- (1) Close the lower cowling ( [AMM TASK 71-12-01-400-801-A/400](#)).
- (2) Remove the ladder.
- (3) On the circuit breaker panel, close these circuit breakers and remove the DO-NOT-CLOSE tag from them:
  - START 1/2.

