

PACK VALVE - REMOVAL/INSTALLATION

EFFECTIVITY: ALL

1. General

- A. This section gives the procedures to remove and install the pack valves of the cooling pack system.
- B. These procedures are applicable to pack valves 1 and 2.
- C. The pack valve 1 is installed on the LH side of the forward lower fairing.
- D. The pack valve 2 is installed on the RH side of the forward lower fairing.
- E. This task gives the instructions to remove the pack-valve air filter.
- F. 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
21-51-01-000-801-A	PACK VALVE - REMOVAL	ALL
21-51-01-400-801-A	PACK VALVE - INSTALLATION	ALL
21-51-01-000-802-A	FILTER - REMOVAL	ALL
21-51-01-400-802-A	FILTER - INSTALLATION	ALL

TASK 21-51-01-000-801-A

EFFECTIVITY: ALL

2. PACK VALVE - REMOVAL

A. General

(1) This procedure gives the instructions to remove the pack valve.

B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-01/100	-

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
191	191KL	LH side of the forward lower fairing
191	191LR	RH side of the forward lower fairing

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	LH or RH side of the forward lower fairing

I. Preparation

SUBTASK 841-002-A

(1) On the Circuit Breaker Panel, open the PACK 1 and PACK 2 circuit breakers and attach a DO-NOT-CLOSE tag to them.

(2) Remove the access panel 191KL or 191LR (AMM MPP 06-41-01/100).

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

SUBTASK 020-002-A

(1) Disconnect the electrical connector (9).

(2) Disconnect the tubes (10) and (11).

(3) Loosen the clamps (2) and (4), and disconnect the tube assemblies (1) and (5).

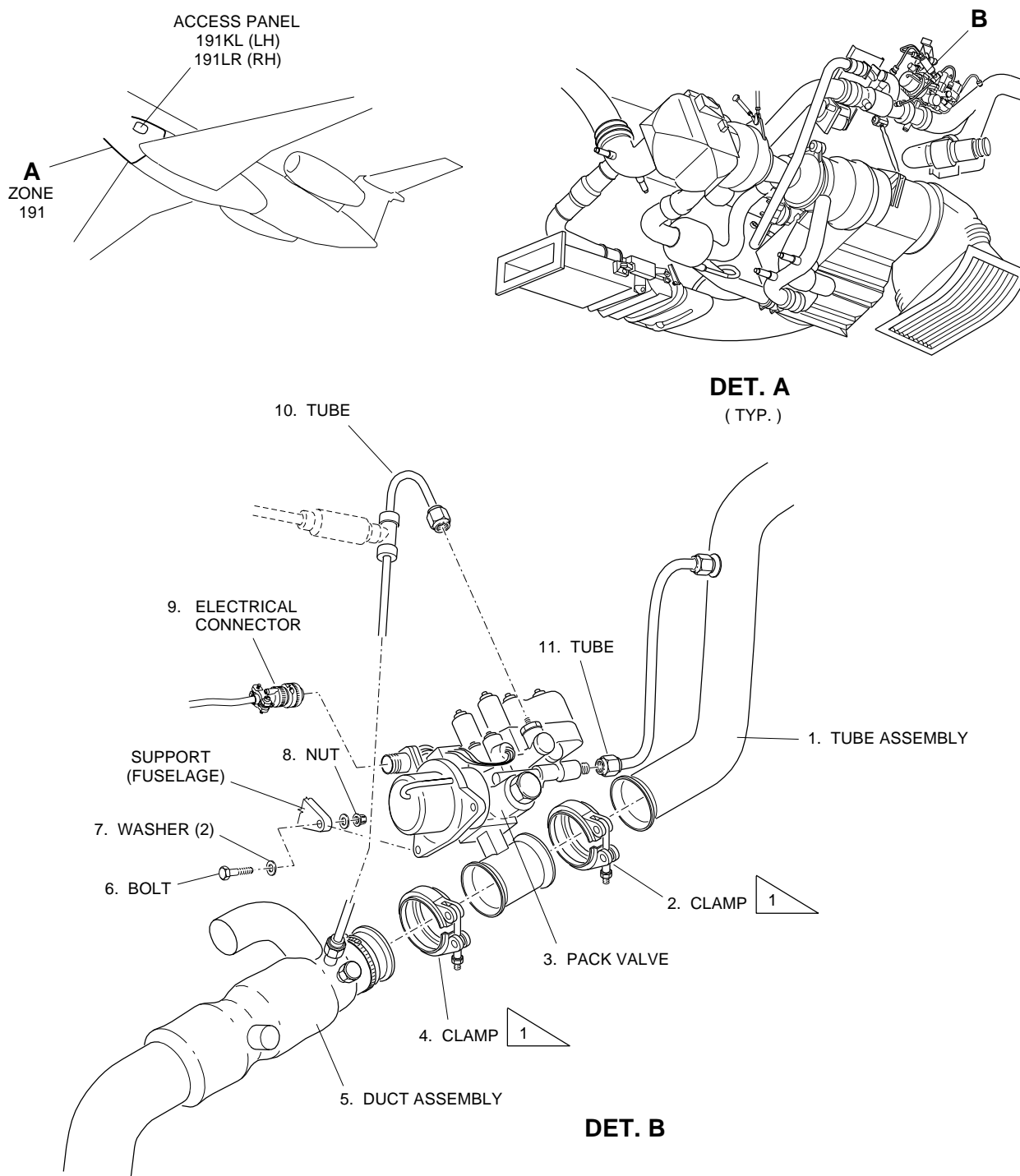


- (4) Remove the nut (8), washers (7), and bolt (6).
- (5) Remove the pack valve (3).

EFFECTIVITY: ALL

Pack Valve - Removal/Installation

Figure 401



TORQUE: 4.5 – 5.7 N.m (40 – 50 lb.in)

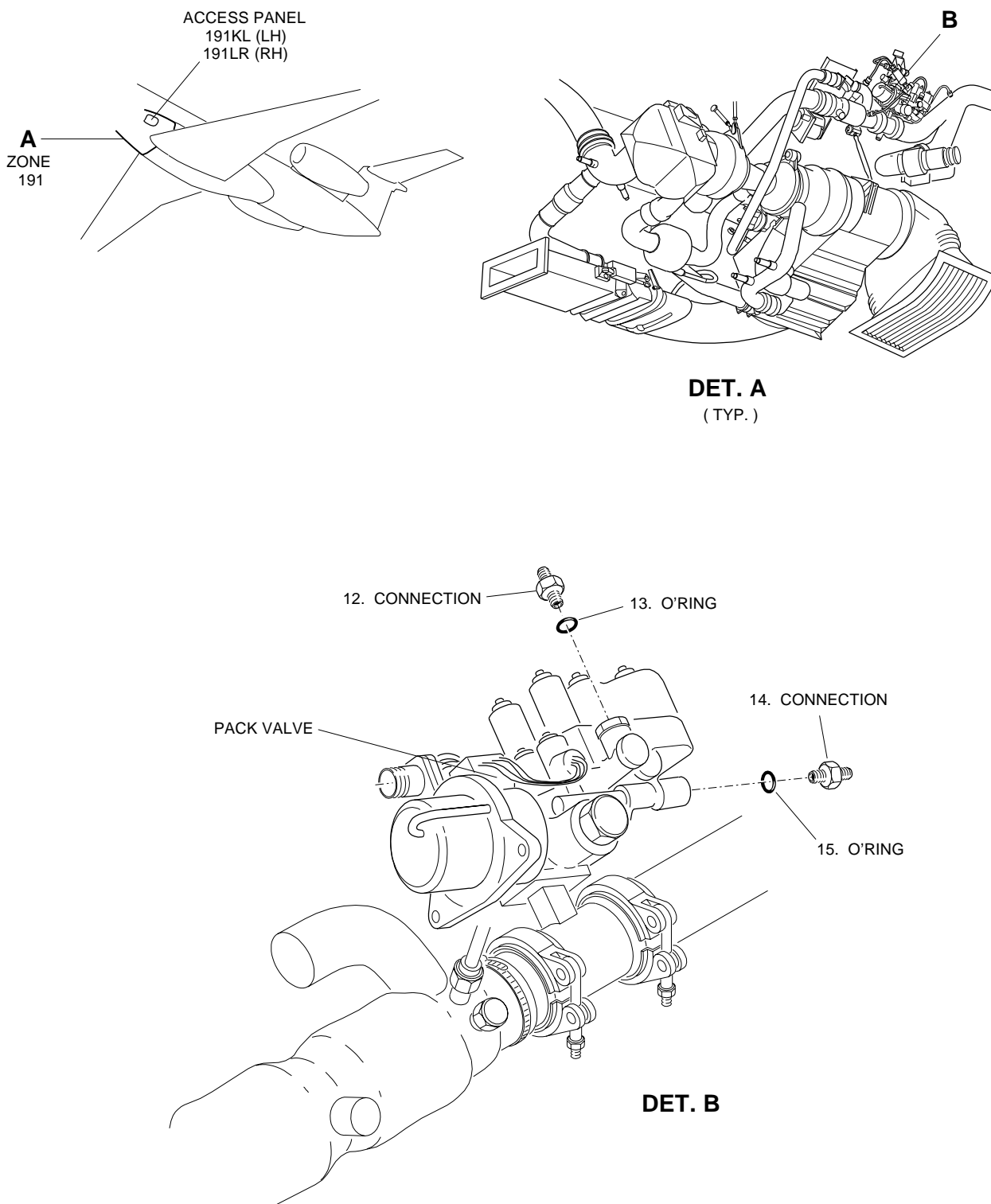
REFER TO TASK 20-10-10-910-801-A FOR CORRECT INSTALLATION OF V-CLAMP.

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EFFECTIVITY: ALL

Pack Valve - Removal/Installation

Figure 402



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TASK 21-51-01-400-801-A

EFFECTIVITY: ALL

3. PACK VALVE - INSTALLATION

A. General

(1) This procedure gives the instructions to install the pack valve.

B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-01/100	-
AMM TASK 21-51-00-700-802-A/500	-
IPC 36-10-00	ENGINE BLEED AIR SYSTEM

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
191	191KL	LH side of the forward lower fairing
191	191LR	RH side of the forward lower fairing

D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Torque wrench (Range: 0-75 lb.in)	To tighten the clamps	

E. Auxiliary Items

Not Applicable

F. Consumable Materials

Not Applicable

G. Expendable Parts

ITEM	IPC REFERENCE (VENDOR REFERENCE)	QTY
O-ring	IPC 36-10-00	1
O-ring	IPC 36-10-00	1

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	LH or RH side of the forward lower fairing

I. Preparation (Figure 402)

SUBTASK 841-003-A

(1) Remove and keep the connections (12) and (14).

(2) Remove and discard the old O-rings (13) and (15).

(3) Install the new O-rings (13) and (15).

(4) Install the connections (12) and (14).

J. Installation (Figure 401)

SUBTASK 420-002-A

(1) Put the pack valve (3) on its support at the fuselage.

(2) Install the bolt (6), washers (7), and nut (8).

(3) Connect the tubes (10) and (11).

(4) Connect the tube assemblies (1) and (5).

(5) Tighten the clamps (2) and (4) to the torque shown in (Figure 401).

(6) Connect the electrical connector (9).

K. Follow-on

SUBTASK 842-002-A

(1) On the Circuit Breaker Panel, close the PACK 1 and PACK 2 circuit breakers and remove the DO-NOT-CLOSE tag from them.

(2) Install access panel 191KL or 191LR (AMM MPP 06-41-01/100).

(3) Do an operational check of the cooling pack system (AMM TASK 21-51-00-700-802-A/500).

TASK 21-51-01-000-802-A

EFFECTIVITY: ALL

4. FILTER - REMOVAL

A. General

- (1) This task gives the instructions to remove the pack-valve air filter.
- (2) This task is applicable to the pack-valve air filter of the LH/RH side of the forward lower fairing.

B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-01/100	-

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
191	191KL	LH side of the forward lower fairing
191	191LR	RH side of the forward lower fairing

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	LH or RH side of the forward lower fairing

I. Preparation

SUBTASK 841-004-A

- (1) On the Circuit Breaker Panel, open the PACK 1 and PACK 2 circuit breakers and attach a DO-NOT-CLOSE tag to them.
- (2) Remove the access panel 191KL or 191LR (AMM MPP 06-41-01/100).

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

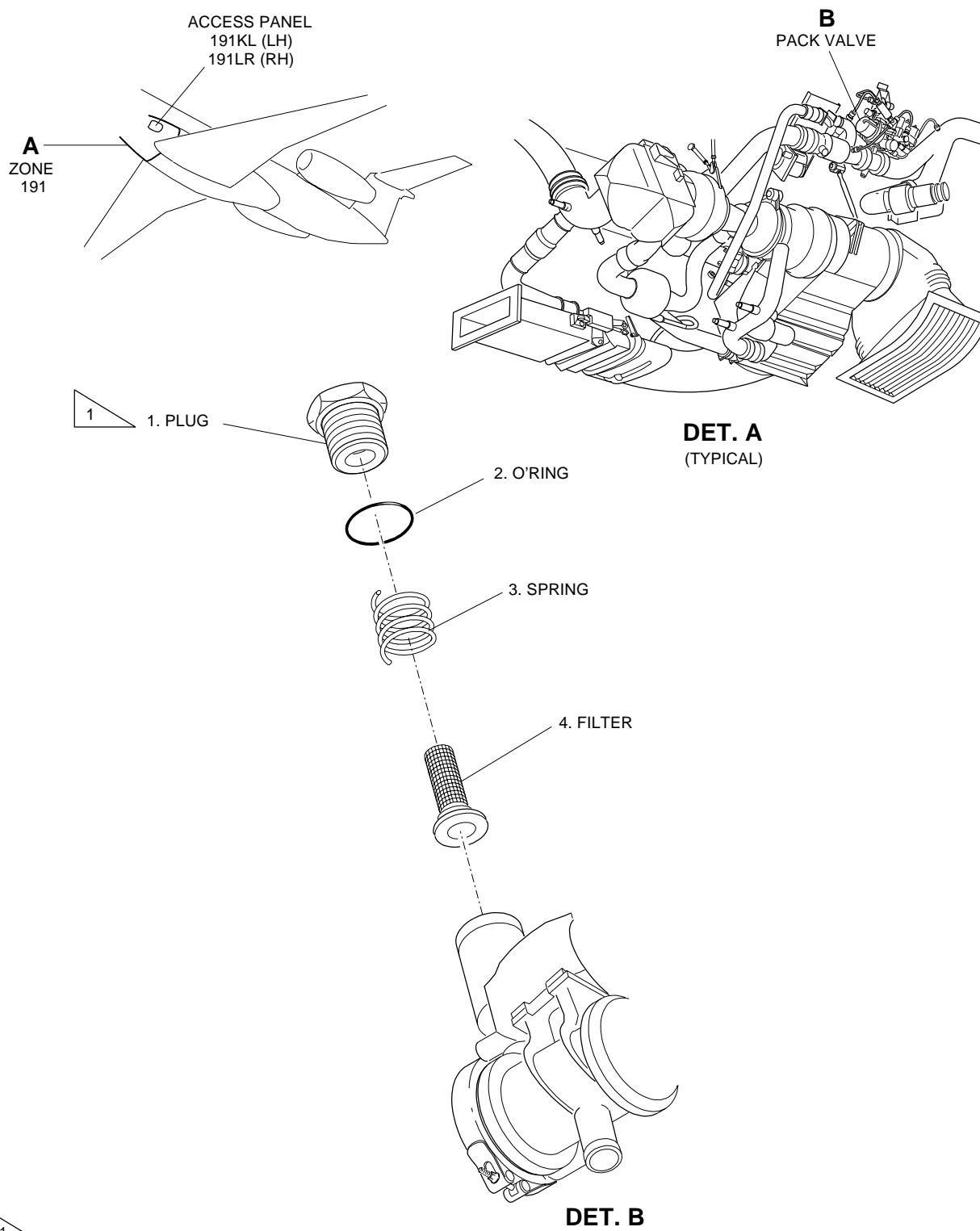
SUBTASK 020-003-A

- (1) Remove the plug (1) from the pack valve.



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- (2) Remove the O-ring (2) and spring (3) from the filter (4).
 - (3) Remove the filter (4) from the pack valve.
 - (4) Install the plug (1) to the pack valve.

EFFECTIVITY: ALL
 Filter - Removal/Installation
 Figure 403



1 TORQUE: 4.0 – 4.5 N.m (35 – 40 lb.in)

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TASK 21-51-01-400-802-A

EFFECTIVITY: ALL

5. FILTER - INSTALLATION

A. General

- (1) This task gives the instructions to install the filter in pack valve.
- (2) This task is applicable to the pack-valve air filter of the LH/RH side of the forward lower fairing.

B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-01/100	-

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
191	191KL	LH side of the forward lower fairing
191	191LR	RH side of the forward lower fairing

D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Torque wrench (Range: 0 - 75 lb.in)	To tighten the clamps	

E. Auxiliary Items

Not Applicable

F. Consumable Materials

SPECIFICATION (BRAND)	DESCRIPTION	QTY
MS20995C20	Lockwire	AR
SAE-AS8660	Silicone Compound (Dow Corning 4 or Dow Corning 44)	AR
	Lubricant Mo-Lith No.2	AR

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	LH or RH side of the forward lower fairing

I. Installation (Figure 403)

SUBTASK 420-003-A

- (1) Remove the plug (1) from the pack valve.

CAUTION: REFER TO FIGURE 403 FOR THE CORRECT INSTALLATION POSITION OF THE FILTER IN THE PACK VALVE.

- (2) Install the filter (4) and spring (3) in the hole of actuator housing in the pack valve.

WARNING: WEAR GLOVES WHEN YOU USE SILICONE COMPOUND (DC 4 or DC 44) AND DO NOT LET IT TOUCH YOUR SKIN OR EYES. IF YOU TOUCH THIS GREASE, EMBRAER RECOMMENDS YOU TO DO THE USUAL HYGIENE PROCEDURES (FULLY WASH YOUR HANDS AND THE OTHER EXPOSED REGIONS OF THE SKIN).

- (3) Lubricate the O-ring (2) with grease silicone compound.
- (4) Lubricate the threads of the plug and actuator housing with thread lubricant (Mo-lith nº2).
- (5) Install the O-ring (2) and plug (1) in the hole actuator housing of pack valve.
- (6) Tighten the plug (1) to the specified torque, refer to (Figure 403).

J. Follow-on

SUBTASK 842-003-A

- (1) On the Circuit Breaker Panel, close the PACK 1 and PACK 2 circuit breakers and remove the DO-NOT-CLOSE tag from them.
- (2) Install the access panel 191KL or 191LR (AMM MPP 06-41-01/100).