

## GROUND CONNECTION VALVE - REMOVAL/INSTALLATION

*EFFECTIVITY: ACFT MODEL(S) EMB-145*

### 1. General

- A. This section gives the procedures to remove, install, deactivate, and reactivate the ground connection valve.
- B. This valve is a flap-type check valve and it interfaces with a rubber seal ring attached to the surface of the ground connection frame.
- 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
21-22-04-000-801-A	GROUND CONNECTION VALVE - REMOVAL	ACFT MODEL(S) EMB-145
21-22-04-400-801-A	GROUND CONNECTION VALVE - INSTALLATION	ACFT MODEL(S) EMB-145
21-22-04-000-802-A	GROUND CONNECTION DOOR RUBBER SEAL RING - REMOVAL	ACFT MODEL(S) EMB-145
21-22-04-400-802-A	GROUND CONNECTION DOOR RUBBER SEAL RING - INSTALLATION	ACFT MODEL(S) EMB-145
21-22-04-040-801-A	GROUND CONNECTION VALVE - DEACTIVATION PROCEDURES	ACFT MODEL(S) EMB-145
21-22-04-440-801-A	GROUND CONNECTION VALVE - REACTIVATION PROCEDURES	ACFT MODEL(S) EMB-145

TASK 21-22-04-000-801-A

*EFFECTIVITY: ACFT MODEL(S) EMB-145*

## 2. GROUND CONNECTION VALVE - REMOVAL

### A. General

(1) This task gives the instructions to remove the ground connection valve.

### B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-01/100	-
AMM MPP 06-41-02/100	-
AMM TASK 25-21-01-000-801-A/400	-
AMM TASK 53-01-02-000-801-A/400	-
AMM TASK 53-01-02-000-802-A/400	-

### C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
191	191AR	Wing-to-fuselage fairing
242	242DF (as applicable)	Passenger cabin floor
242	242BF (as applicable)	Passenger cabin floor

### 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	On the wing-to-fuselage fairing

### I. Preparation

#### **SUBTASK 841-016-B**

- (1) Remove the passenger seat (AMM TASK 25-21-01-000-801-A/400) installed on floor panel 242DF or 242BF, as applicable (AMM MPP 06-41-02/100).
- (2) Remove passenger-cabin floor panel 242DF (AMM TASK 53-01-02-000-801-A/400) or 242BF (AMM TASK 53-01-02-000-802-A/400), as applicable (AMM MPP 06-41-02/100).

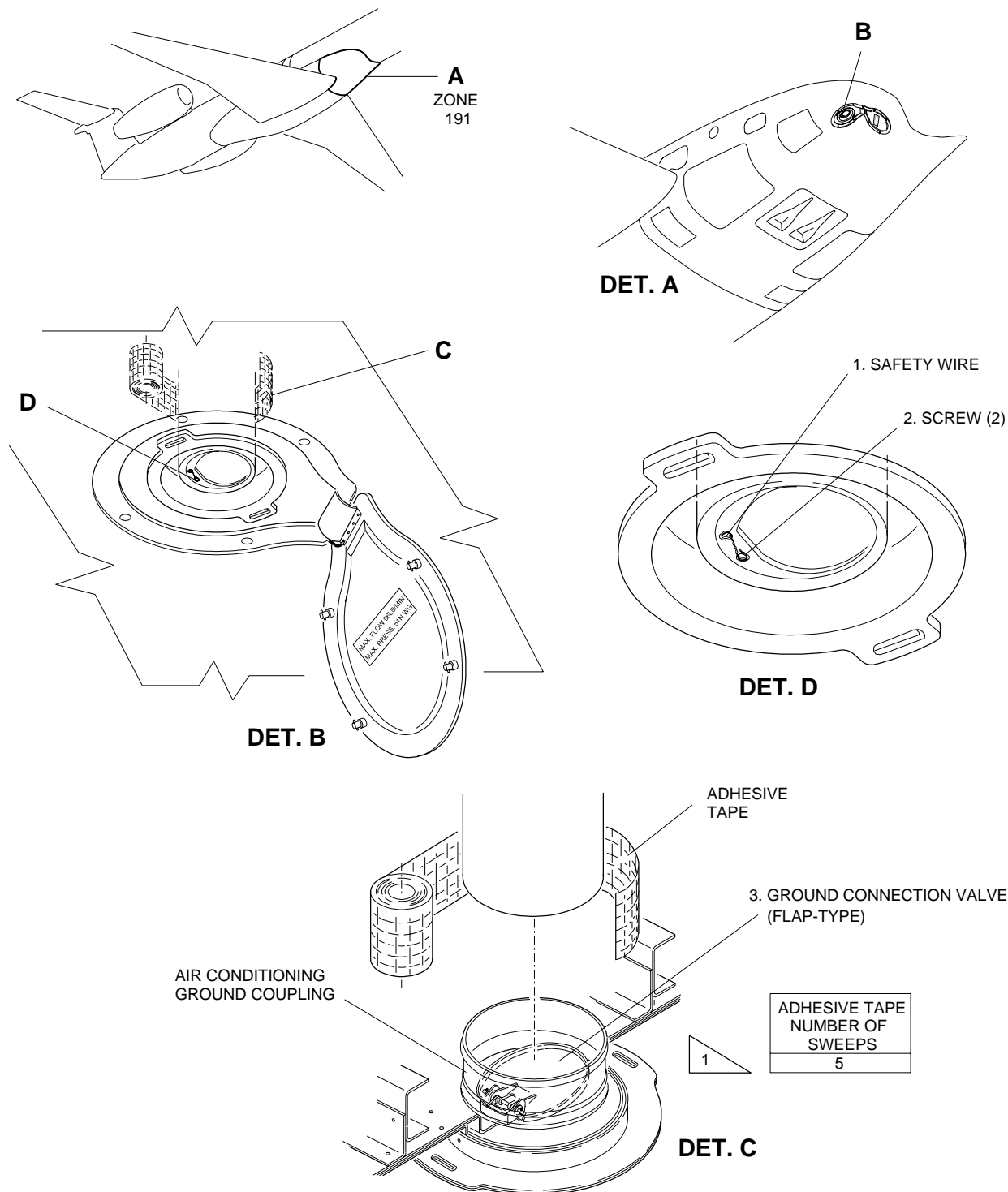
- (3) Remove the adhesive tape. Then loosen and move away from its position the main distribution-manifold air-duct, installed after the mixture chamber.
- (4) Open access panel 191AR (AMM MPP 06-41-01/100).

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

*SUBTASK 020-016-B*

- (1) Remove the safety wire (1).
- (2) Remove the two screws (2).
- (3) Remove the ground connection valve (3) (flap-type).

EFFECTIVITY: ACFT MODEL(S) EMB-145  
Ground Connection Valve - Removal/Installation  
Figure 401



145AMM210154.MCE B

TASK 21-22-04-400-801-A

*EFFECTIVITY: ACFT MODEL(S) EMB-145*

### 3. GROUND CONNECTION VALVE - INSTALLATION

#### A. General

(1) This task gives the instructions to install the ground connection valve.

#### B. References

<i>REFERENCE</i>	<i>DESIGNATION</i>
AMM MPP 06-41-01/100	-
AMM MPP 06-41-02/100	-
AMM TASK 25-21-01-400-801-A/400	-
AMM TASK 28-41-00-200-801-A/600	-
AMM TASK 53-01-02-400-801-A/400	-
AMM TASK 53-01-02-400-802-A/400	-

#### C. Zones and Accesses

<i>ZONE</i>	<i>PANEL/DOOR</i>	<i>LOCATION</i>
191	191AR	Wing-to-fuselage fairing
242	242DF (as applicable)	Passenger cabin floor
242	242BF (as applicable)	Passenger cabin floor

#### D. Tools and Equipment

Not Applicable

#### E. Auxiliary Items

Not Applicable

#### F. Consumable Materials

Not Applicable

#### G. Expandable Parts

Not Applicable

#### H. Persons Recommended

<i>QTY</i>	<i>FUNCTION</i>	<i>PLACE</i>
1	Does the task	On the wing-to-fuselage fairing

#### I. Installation (Figure 401)

##### *SUBTASK 420-016-B*

(1) Install the ground connection valve (3) (flap-type).

(2) Install the two screws (2).

- (3) Install the safety wire (1).

J. Follow-on

*SUBTASK 842-016-B*

- (1) Install the main distribution-manifold air-duct in position and attach it with adhesive tape.
- (2) Do an inspection on 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).

- (3) Install passenger-cabin floor panel 242DF (AMM TASK 53-01-02-400-801-A/400) or 242BF (AMM TASK 53-01-02-400-802-A/400), as applicable (AMM MPP 06-41-02/100).
- (4) Install the passenger seat (AMM TASK 25-21-01-400-801-A/400) on floor panel 242DF or 242BF, as applicable (AMM MPP 06-41-02/100).
- (5) Close access panel 191AR (AMM MPP 06-41-01/100).

TASK 21-22-04-000-802-A

EFFECTIVITY: ACFT MODEL(S) EMB-145

#### 4. GROUND CONNECTION DOOR RUBBER SEAL RING - REMOVAL

##### A. General

- (1) This task gives the instructions to remove the rubber seal ring of the ground connection door frame.

##### B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-01/100	-
<a href="#">AMM TASK 20-00-00-910-801-A/200</a>	AIRCRAFT SAFE PROCEDURES FOR MAINTENANCE SERVICES - MAINTENANCE PRACTICES

##### C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
191	191AR	Forward wing-to-fuselage fairing

##### D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Polyethylene spatula	To remove the rubber seal ring	

##### 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	On the forward wing-to-fuselage fairing

##### I. Preparation

SUBTASK 841-017-B

**WARNING: MAKE SURE THAT THE AIRCRAFT IS IN A SAFE CONDITION BEFORE YOU DO THE MAINTENANCE PROCEDURES. THIS IS TO PREVENT INJURY TO PERSONS AND/OR DAMAGE TO THE EQUIPMENT.**

- (1) Do the procedure to make the aircraft safe for maintenance ( [AMM TASK 20-00-00-910-801-A/200](#) ).

(2) Open the access door 191AR (AMM MPP 06-41-01/100).

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

*SUBTASK 020-017-B*

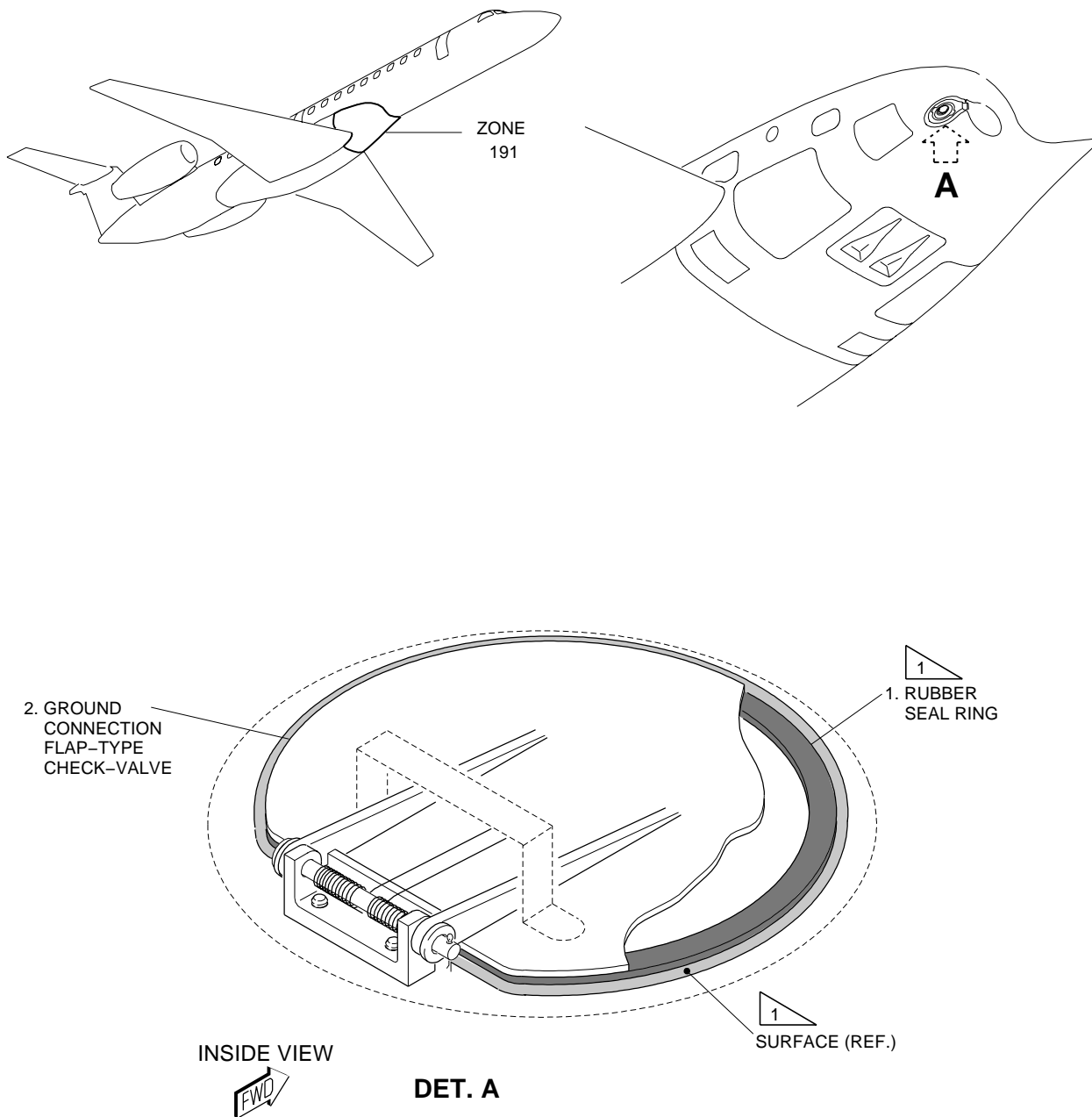
- (1) Open the ground connection flap-type check valve (2).
- (2) Remove the rubber seal ring (1) from the surface with the aid of a polyethylene spatula, as applicable.



**EFFECTIVITY: ACFT MODEL(S) EMB-145**

**Ground Connection Door Rubber Seal Ring - Removal/Installation**

**Figure 402**



TASK 21-22-04-400-802-A

EFFECTIVITY: ACFT MODEL(S) EMB-145

5. GROUND CONNECTION DOOR RUBBER SEAL RING - INSTALLATION

A. General

- (1) This task gives the instructions to install the rubber seal ring of the ground connection door frame.

B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-01/100	-
<a href="#">AMM TASK 20-00-00-910-801-A/200</a>	AIRCRAFT SAFE PROCEDURES FOR MAINTENANCE SERVICES - MAINTENANCE PRACTICES
AMM TASK 21-31-00-700-808-A/500	-

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
191	191AR	Forward wing-to-fuselage fairing

D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Wiper cloth	To clean the surface	
Commercially available	Sandpaper No. 180	To sand the surface	

E. Auxiliary Items

Not Applicable

F. Consumable Materials

SPECIFICATION (BRAND)	DESCRIPTION	QTY
TT-M-261	Methyl Ethyl Ketone (MEK)	AR
MMM-A-121	Adhesive EC1300L	AR

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	On the forward wing-to-fuselage fairing

I. Installation (Figure 402)

*SUBTASK 420-017-B*

- WARNING:** • PUT ON SAFETY GOGGLES, PROTECTIVE MASK AND RUBBER GLOVES WHEN SANDING SURFACES.
- DO NOT BREATHE THE DUST RELEASED DURING THE PROCESS BECAUSE THIS IS DANGEROUS TO THE RESPIRATORY TRACT.

(1) Lightly sand the surface with a sandpaper.

- WARNING:** • PUT ON SAFETY GOGGLES, PROTECTIVE MASK AND RUBBER GLOVES WHEN APPLYING SOLVENT DURING THE CLEANING PROCESS.
- DO NOT BREATHE THE SOLVENT VAPORS AND PREVENT THE CONTACT OF THE SOLVENT WITH THE SKIN AND/OR EYES BECAUSE THIS IS DANGEROUS TO THE RESPIRATORY TRACT AND CAN CAUSE SKIN IRRITATION.
  - IF ANY CHEMICAL PRODUCT BE IN CONTACT WITH SKIN AND/OR EYES, FLUSH IT (THEM) WITH WATER IMMEDIATELY AND GET MEDICAL AID.

(2) Wipe the surface with a clean cloth soaked with MEK (TT-M-261).

**NOTE:** Before solvent evaporation, wipe the surface with a dry and clean cloth.

- (3) Apply adhesive EC1300L (MMM-A- 121) to the rubber seal ring (1) and to the surface where it will be installed.
- (4) Install the rubber seal ring (1) on the surface.
- (5) Wait the adhesive to cure. Refer to the manufacturer instructions.
- (6) Close the ground connection flap-type check valve (1).

J. Follow-on

*SUBTASK 842-017-B*

- (1) Do the functional test for Cabin Leakage with Air Bled from the Engine or APU (AMM TASK 21-31-00-700-808-A/500).
- (2) Close the access door 191AR (AMM MPP 06-41-01/100).
- (3) Put the aircraft on its initial configuration ( [AMM TASK 20-00-00-910-801-A/200](#)).

TASK 21-22-04-040-801-A

EFFECTIVITY: ACFT MODEL(S) EMB-145

6. GROUND CONNECTION VALVE - DEACTIVATION PROCEDURES

A. General

- (1) This task gives the procedures to deactivate the Ground Connection Valve.
- (2) This task refers to item 21-22-04 - Ground Connection Valve - of DDPM.
- (3) The airplane may be dispatched with the external ground connector check valve inoperative:
  - Closed.
  - Open, provided the flight is conducted in an unpressurized configuration

B. References

REFERENCE	DESIGNATION
<a href="#">AMM TASK 21-31-03-040-801-A/400</a>	ELECTROPNEUMATIC OUTFLOW VALVE - DEACTIVATION PROCEDURE
<a href="#">AMM TASK 21-31-04-040-801-A/400</a>	PNEUMATIC OUTFLOW VALVE - DEACTIVATION PROCEDURE

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

Not Applicable

I. Deactivation Procedures

*SUBTASK 040-003-B*

- (1) Refer to Electropneumatic and Pneumatic Outflow Valves Deactivation Procedures ([AMM TASK 21-31-03-040-801-A/400](#) and [AMM TASK 21-31-04-040-801-A/400](#) ) for outflow valves secured open, if required.
- (2) Write in the aircraft technical logbook that you did the deactivation procedure for the Ground Connection Valve.

TASK 21-22-04-440-801-A

EFFECTIVITY: ACFT MODEL(S) EMB-145

## 7. GROUND CONNECTION VALVE - REACTIVATION PROCEDURES

### A. General

- (1) This task gives the procedures to reactivate the Ground Connection Valve.
- (2) This task refers to item 21-22-04 - Ground Connection Valve - of DDPM.

### B. References

REFERENCE	DESIGNATION
<a href="#">AMM TASK 21-31-03-440-801-A/400</a>	ELECTROPNEUMATIC OUTFLOW VALVE - REACTIVATION PROCEDURE
<a href="#">AMM TASK 21-31-04-440-801-A/400</a>	PNEUMATIC OUTFLOW VALVE - REACTIVATION PROCEDURE

### 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

Not Applicable

### I. Reactivation Procedures

**SUBTASK 440-003-B**

- (1) Do the troubleshooting and the applicable corrective maintenance procedure for the Ground Connection Valve.
- (2) Refer to Electropneumatic and Pneumatic Outflow Valves Reactivation Procedures ([AMM TASK 21-31-03-440-801-A/400](#) and [AMM TASK 21-31-04-440-801-A/400](#) ), if required.

