



EMB145 - EMB135

AIRCRAFT
MAINTENANCE MANUAL

MANIFOLD ASSEMBLY - REMOVAL/INSTALLATION

EFFECTIVITY: ALL

1. General

- A. This section gives the procedures to remove and install the manifolds of the hydraulic lines of the aileron systems.
- B. These procedures are applicable to the two manifolds of the aileron systems.
- C. The manifold of Aileron System 1 is installed on the forward wing stub.
- D. The manifold of Aileron System 2 is installed inside the wing stub, on the rear wall.
- E. 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
27-12-02-000-801-A	MANIFOLD - REMOVAL	ALL
27-12-02-400-801-A	MANIFOLD - INSTALLATION	ALL



EMB145 - EMB135

AIRCRAFT
MAINTENANCE MANUAL

TASK 27-12-02-000-801-A

EFFECTIVITY: ALL

2. MANIFOLD - REMOVAL

A. General

- (1) This procedure gives the instructions to remove the manifold of the hydraulic line of the aileron system.

B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-01/100	-
AMM TASK 29-10-00-860-801-A/200	HYDRAULIC SYSTEM - PRESSURIZATION WITH HTS

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
192	192AL	Wing stub
192	192BR	Wing stub

D. Tools and Equipment

Not Applicable

E. Auxiliary Items

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Rubber Gloves, Phosphate Ester-Base, Fluid-Resistant	Protection for the hands	1
Commercially available	Rubber Goggles, Phosphate Ester-Base, Fluid-Resistant	Protection for the eyes	1

F. Consumable Materials

Not Applicable

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Wing stub

I. Preparation

SUBTASK 841-002-A

- (1) On the circuit breaker panel, open the ELEC PUMP 1 and ELEC PUMP 2 circuit breakers and attach a DO-NOT-CLOSE tag to them.



AIRCRAFT MAINTENANCE MANUAL

(2) Release the pressure of the hydraulic system ([AMM TASK 29-10-00-860-801-A/200](#)).

(3) Remove access panels 192AL and 192BR (AMM MPP 06-41-01/100).

J. Removal ([Figure 401](#)) ([Figure 402](#))

SUBTASK 020-002-A

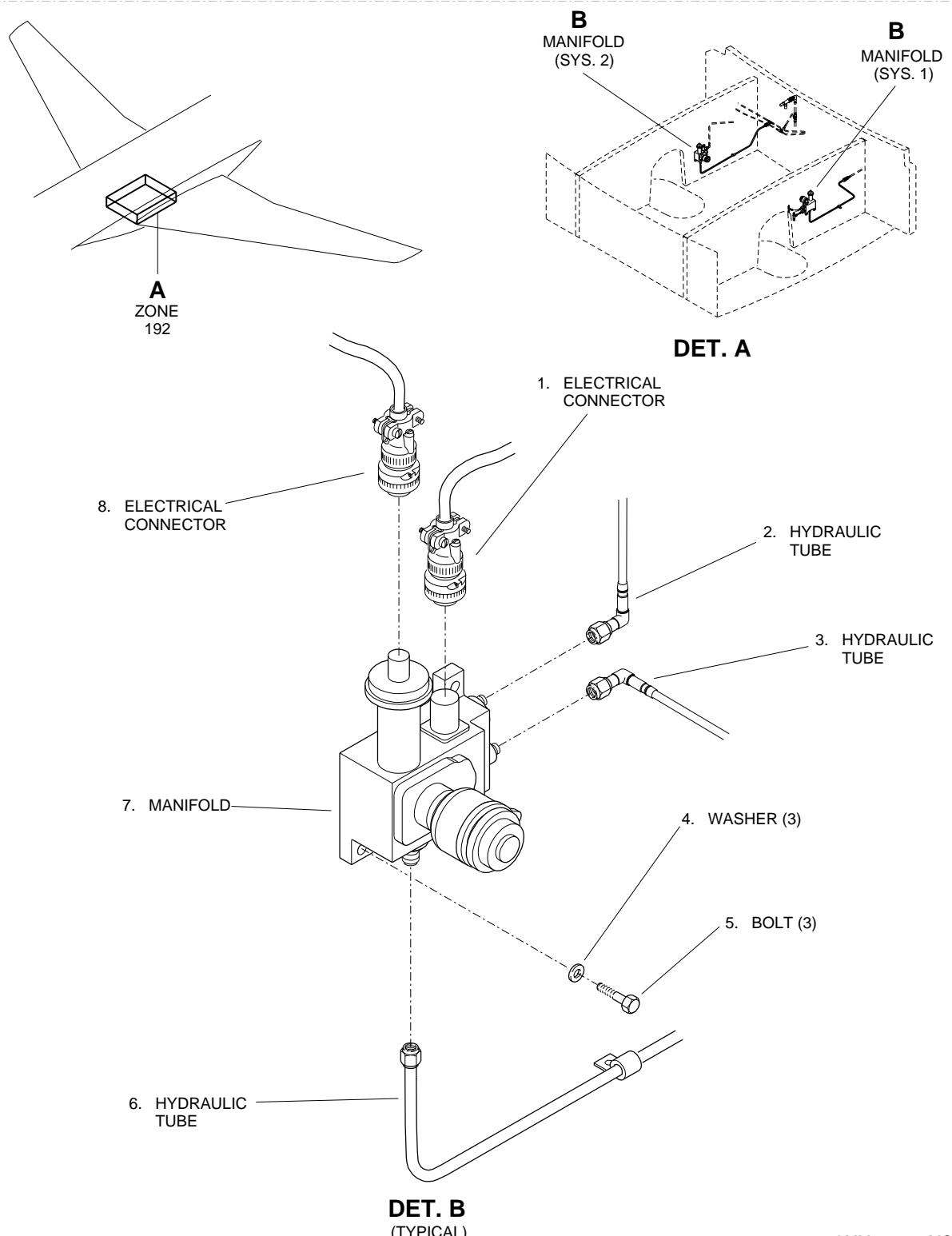
WARNING: THE HYDRAULIC SYSTEM CONTAINS PHOSPHATE-ESTER HYDRAULIC FLUID. THE FLUID CAN CAUSE IRRITATION IN YOUR SKIN OR INJURY TO YOUR EYES. USE THE APPLICABLE RUBBER GOGGLES AND GLOVES. IF THE FLUID TOUCHES YOU, FLUSH YOUR SKIN WITH WATER. IF IT GETS IN YOUR EYES, FLUSH THEM WITH WATER AND GET MEDICAL HELP.

- (1) Disconnect the electrical connectors (1) and (8).
- (2) Disconnect the hydraulic tubes (2), (3) and (6).
- (3) Remove the bolts (5) and washers (4) (3 positions).
- (4) Remove the manifold (7).

EFFECTIVITY: EMB-145 EP, ER, EU, AND EMB-135 ER MODELS

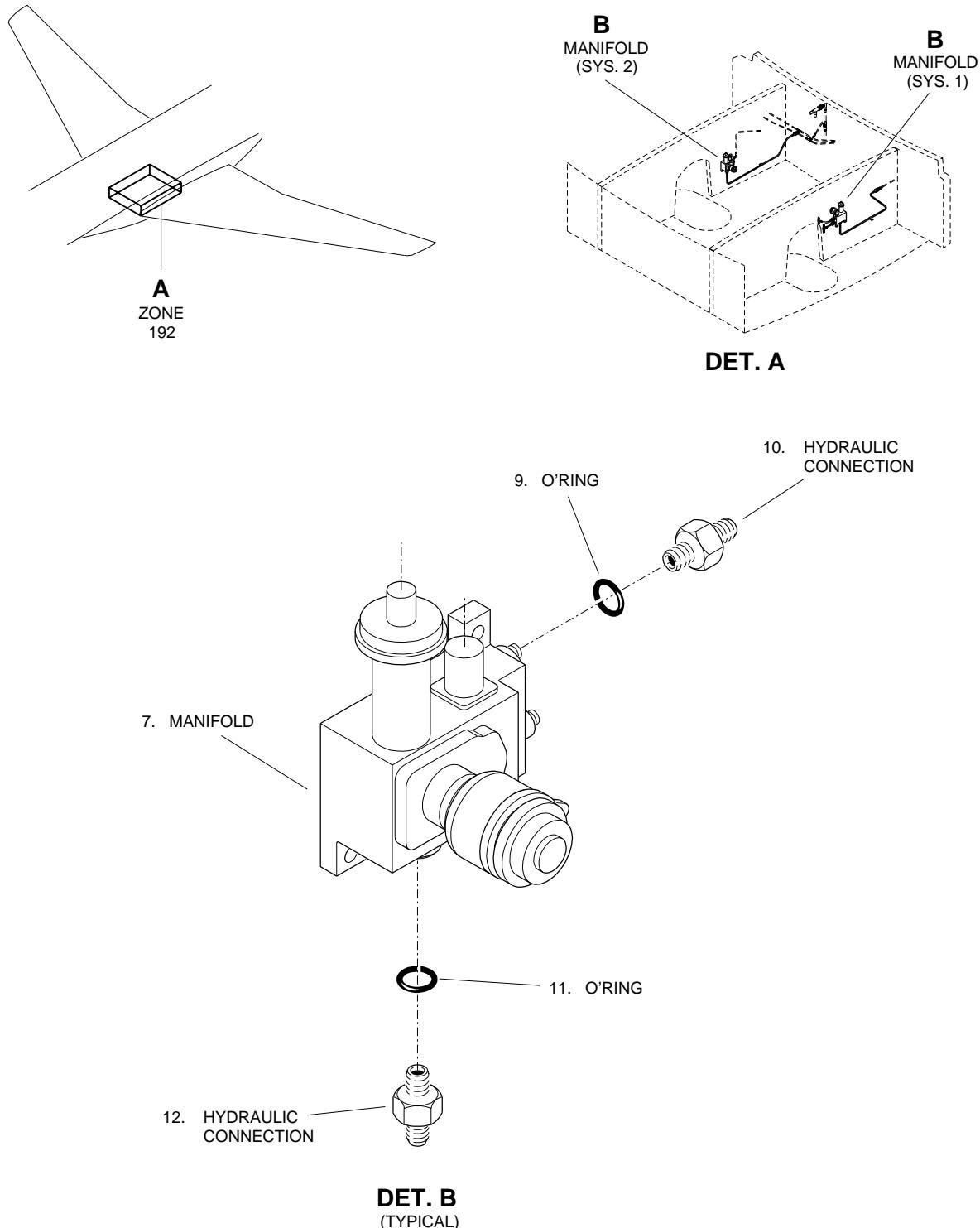
Manifold - Removal/Installation

Figure 401 - Sheet 1



145AMM270192.MCE B

EFFECTIVITY: EMB-145 EP, ER, EU, AND EMB-135 ER MODELS
Manifold - Removal/Installation
Figure 401 - Sheet 2

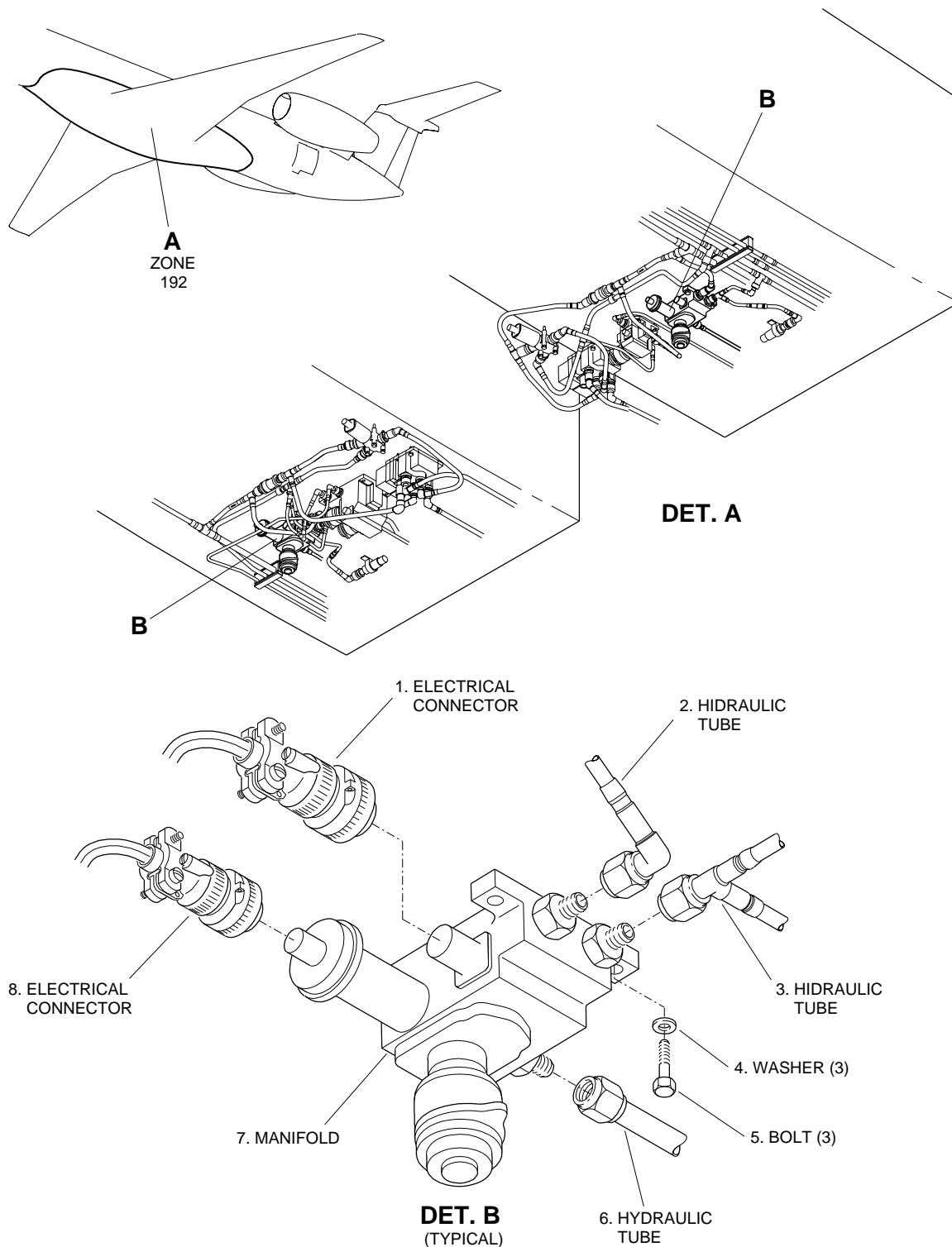


145AMM270193.MCE B

EFFECTIVITY: EMB-145 LR, LU, MP, AND EMB-135 LR MODELS

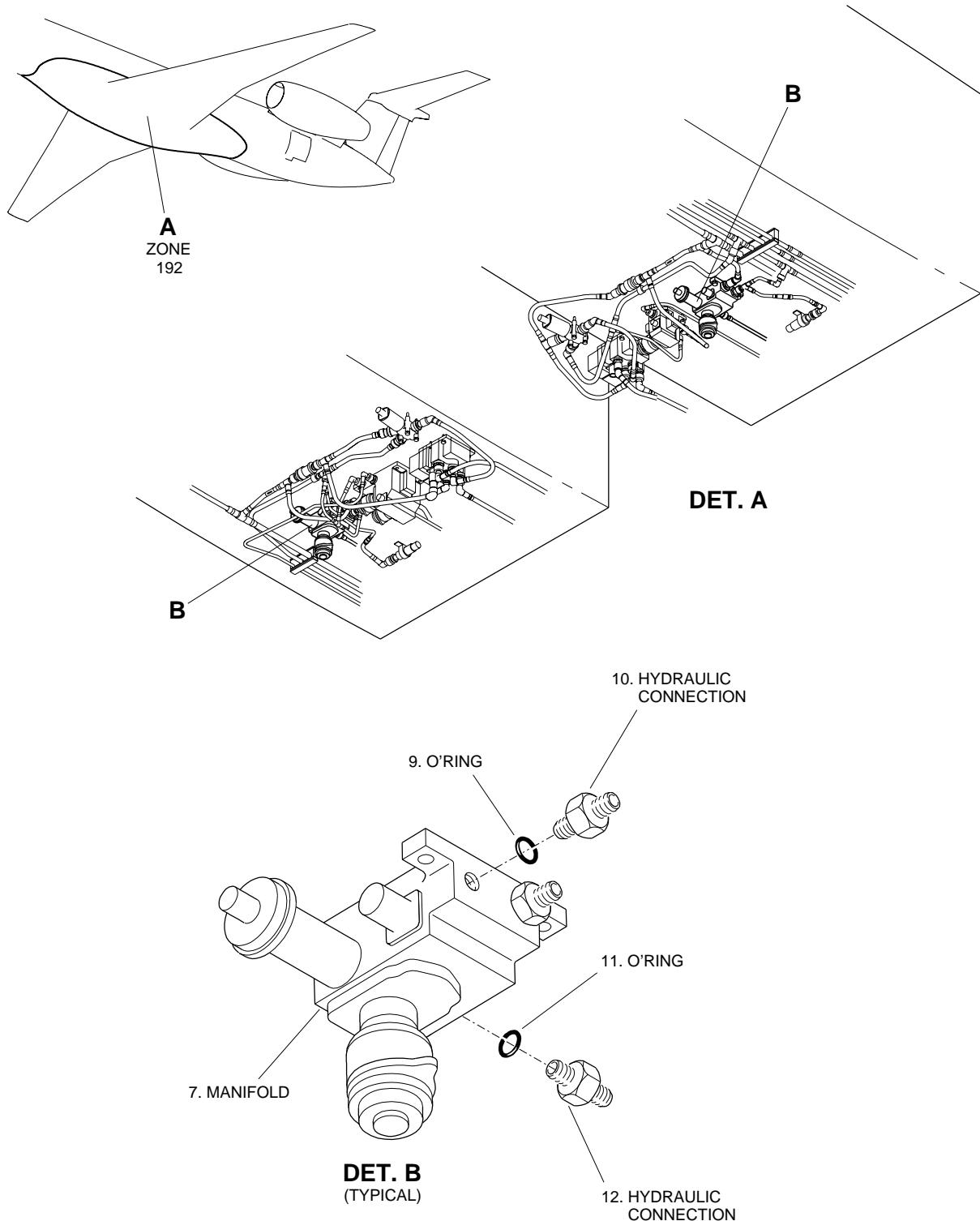
Manifold - Removal/Installation

Figure 402 - Sheet 1



145AMM270386.MCE A

EFFECTIVITY: EMB-145 LR, LU, MP, AND EMB-135 LR MODELS
Manifold - Removal/Installation
Figure 402 - Sheet 2



145AMM270387.MCE A



EMB145 - EMB135

AIRCRAFT
MAINTENANCE MANUAL

TASK 27-12-02-400-801-A

EFFECTIVITY: ALL

3. MANIFOLD - INSTALLATION

A. General

- (1) This procedure gives the instructions to install the manifold of the hydraulic line of the aileron system.

B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-01/100	-
AMM TASK 27-13-00-700-801-A/500	AILERON SOLENOID-MANIFOLD-SHUTOFF FUNCTION - OPERATIONAL CHECK
AMM TASK 28-41-00-200-801-A/600	-
AMM TASK 29-10-00-860-803-A/200	HYDRAULIC SYSTEM - BLEED OF AIR
IPC 27-12-00	AILERON HYDRAULIC ACTUATION

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
192	192AL	Wing stub
192	192BR	Wing stub

D. Tools and Equipment

Not Applicable

E. Auxiliary Items

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Rubber Gloves, Phosphate Ester-Base, Fluid-Resistant	Protection for the hands	1
Commercially available	Rubber Goggles, Phosphate Ester-Base, Fluid-Resistant	Protection for the eyes	1

F. Consumable Materials

Not Applicable

G. Expendable Parts

ITEM	IPC REFERENCE (VENDOR REFERENCE)	QTY
O-ring	IPC 27-12-00	2
O-ring	IPC 27-12-00	2

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Wing stub

I. Preparation
SUBTASK 841-003-A

- (1) Remove and keep the hydraulic connections (10) and (12).
- (2) Remove and discard the old O-rings (9) and (11).
- (3) Install the new O-rings (9) and (11).
- (4) Install the hydraulic connections (10) and (12).

J. Installation (Figure 401)
SUBTASK 420-002-A

WARNING: THE HYDRAULIC SYSTEM CONTAINS PHOSPHATE-ESTER HYDRAULIC FLUID. THE FLUID CAN CAUSE IRRITATION IN YOUR SKIN OR INJURY TO YOUR EYES. USE THE APPLICABLE RUBBER GOGGLES AND GLOVES. IF THE FLUID TOUCHES YOU, FLUSH YOUR SKIN WITH WATER. IF IT GETS IN YOUR EYES, FLUSH THEM WITH WATER AND GET MEDICAL HELP.

- (1) Put the manifold (7) on the its installation position.
- (2) Install the bolts (5) and washers (4) (3 positions) to attach the manifold (7).
- (3) Connect the hydraulic tubes (2), (3), and (6).
- (4) Connect the electrical connectors (1) and (8).

K. Follow-on
SUBTASK 842-002-A

- (1) On the circuit breaker panel, close the ELEC PUMP 1 and ELEC PUMP 2 circuit breakers and remove the DO-NOT-CLOSE tag from them.
- (2) Bleed the air from the hydraulic system lines ([AMM TASK 29-10-00-860-803-A/200](#)).
- (3) Make sure that there are no leaks in the manifold.
- (4) Do the operational check of the aileron solenoid-manifold-shutoff function ([AMM TASK 27-13-00-700-801-A/500](#)).
- (5) 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).

- (6) Install access panels 192AL and 192BR (AMM MPP 06-41-01/100).

